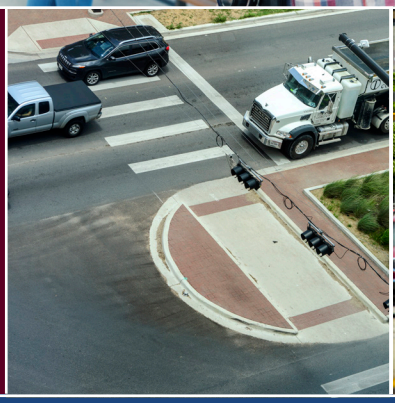
2021 Urban Mobility REPORT



Texas A&M Transportation Institute

INRIX

NICR
NATIONAL INSTITUTE FOR CONGESTION REDUCTION

Texas Department of Transportation

2021 URBAN MOBILITY REPORT

Published by The Texas A&M Transportation Institute
with cooperation from INRIX

David Schrank
Senior Research Scientist

Luke Albert
Associate Research Engineer

Bill Eisele
Senior Research Engineer

Tim Lomax
Research Fellow

Texas A&M Transportation Institute
The Texas A&M University System
mobility.tamu.edu

Sponsored by
Texas Department of Transportation
and the
National Institute for Congestion Reduction

June 2021

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein.

Sponsorship

The authors would like to thank the Texas Department of Transportation and the National Institute for Congestion Reduction for sponsorship of the *2021 Urban Mobility Report.*

"As the *2021 Urban Mobility Report* shows, congestion levels in Texas and much of the rest of the country have rebounded to near pre-pandemic levels. In Texas, we continue to see the same underlying causes — a growing population and economy that is producing more passenger vehicle and truck traffic on roadways throughout the state. That's why we're focused on important initiatives such as Texas Clear Lanes to address the top chokepoints in our state's largest metropolitan areas, as well as understanding the many facets of the traffic challenges we face. Studies such as the *2021 Urban Mobility Report* are an important tool in this effort as we continually work to improve mobility and safety on our roadways."

— Marc Williams, Executive Director
Texas Department of Transportation

Acknowledgements

Shawn Turner, Brianne Glover, Phil Lasley and Debbie Albert — Concept and Methodology Development
Phil Lasley, L.D. White — Website Tableau Visualization
Michelle Young — Report Preparation
Lauren Geng — Geographic Information Dataset Conflation
Tobey Lindsey — Web Page Creation and Maintenance
Shelby Brooks, Richard Cole, Rick Davenport, Bernie Fette, Chris Pourteau, and Jack Wenzel — Media Relations
Vicky Nelson — Cover Artwork
Dolores Hott and Nancy Pippin — Printing and Distribution
Jim Williams, Rick Schuman, Ted Trepanier, and Angela Salerno of INRIX — Data Technical Support

Table of Contents

List of Exhibits

List of Tables

A Quick Summary

Well, that was different…. In 2020, there were four unique congestion years in one.

1. There were the first couple months of "regular times."
2. Then the shutdown period occurred when America flattened the virus curve — and the congestion curve.
3. The initial recovery in the summer when traffic and congestion began to return.
4. And then the "closer to normal" period hit in the fall when shorter rush hours returned to cities.

The trends were different at the regional level, but every area saw much more change than any other *Report* period. Congestion levels in early 2021 are at least a decade behind where they were in 2019.

It is not yet clear what the lasting effect of the COVID-19 pandemic will be on U.S. urban transportation systems. The mix of strategies that are deployed in urban America will be different for each region — better traffic operations; more travel options; new land development styles; more highways, streets, and public transportation; advanced technology will all play a role. Working from home, long an underappreciated solution, will certainly have a much bigger role after the pandemic experience.

The trends from 1982 to 2020 (see Exhibit 1) show that congestion was a persistently growing problem, until 2020, when congestion was different from city to city, road to road, and hour to hour.

- The "four congestion years" of 2020 took us on a ride from the present to the early 1990s, and back to the mid-2000s (see Exhibit 18). 2021 will see faster congestion growth than any time since 1982.
- Annual 2020 congestion costs and travel delay were about half of the 2019 problem — total congestion delay was like 1997, more than two decades ago. Per commuter cost was less than 1982 in constant 2020 dollars.
- Truck traffic volume did not decline nearly as much as passenger car traffic problems thanks to the increase in at-home delivery of essential goods and services.
- 2020 employment was down 9 percent (*1*) and traffic volume was down 18 percent from 2019 (*2*).
- The detailed speed data from INRIX (*3*), a leading private-sector provider of travel time information for travelers and shippers, has never been more important in understanding congestion.

Exhibit 1. Major Findings of the *2021 Urban Mobility Report* (494 U.S. Urban Areas)

Measures of…	1982	2000	2019	2020	The Crash
… Individual Congestion					
Yearly delay per auto commuter (hours)	20	38	54	27	-50%
Travel Time Index	1.10	1.19	1.23	1.09	-14 points
"Wasted" fuel per auto commuter (gallons)	5	15	22	11	-50%
Congestion cost per auto commuter (in 2020 $)	$640	$960	$1,170	$605	-48%
… The Nation's Congestion Problem					
Travel delay (billion hours)	1.7	5.1	8.7	4.3	-51%
"Wasted" fuel (billion gallons)	0.8	2.4	3.5	1.7	-51%
Excess greenhouse gas emissions (million tons)	8	25	36	18	-50%
Truck congestion cost (billions of 2020 dollars)	$1.8	$7	$20	$11	-44%
Congestion cost (billions of 2020 dollars)	$15	$77	$190	$101	-47%
Travel volume (billion miles traveled)	670	1,160	1,600	1,300	-18%

Yearly delay per auto commuter — The extra time spent during the year traveling at congested speeds rather than free-flow speeds by private vehicle drivers and passengers who typically travel in the peak periods.
Travel Time Index (TTI) — The ratio of travel time in the peak period to travel time at free-flow conditions. A Travel Time Index of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.
Excess fuel and greenhouse gas emissions — The amount beyond what would have been expected at free-flow speeds.
Congestion cost — The yearly value of delay time and wasted fuel by all vehicles.
Travel volume — Miles traveled by all vehicles during the year.

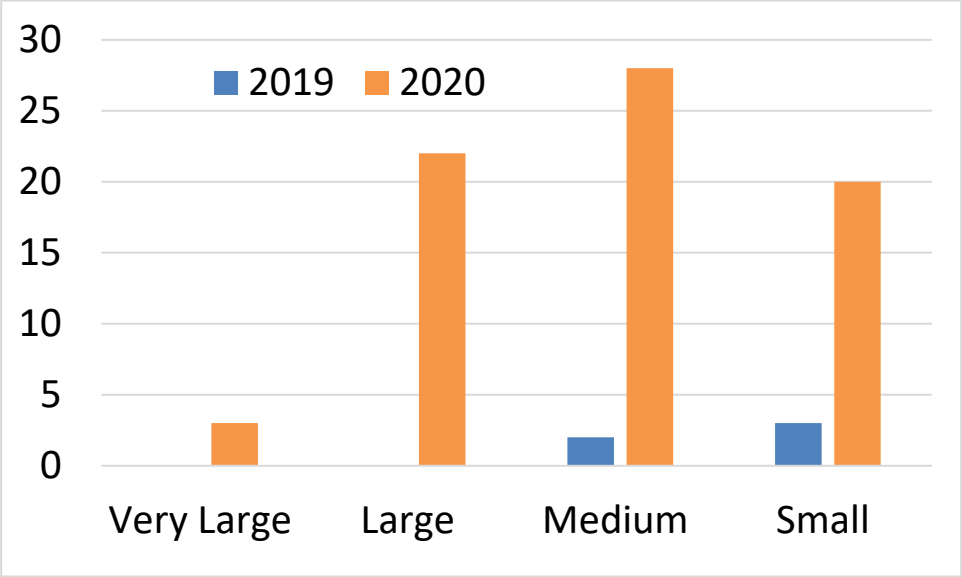
Urban Area Congestion Changes — 2019 to 2020

Rush-hour traffic jams are expected in big cities. When a large percentage of workers are on an 8 a.m. or 9 a.m. to 5 p.m. schedule, there will be travel delays on freeways, streets, and even public transportation. This results in several "rush hours" in the morning and afternoon.

When the COVID-19 pandemic upended this regular commute pattern, congestion went away for several months. As it has returned, the patterns are different, but the insight into the problems has also changed the solutions that are being considered.

The COVID-19 congestion changes were most evident in the travel delay per auto commuter statistic. There were only five areas with less than 30 hours of extra annual travel time for a commuter in 2019. There were 73 such regions in 2020 (Exhibit 2). The last time there were 73 regions under 30 was ***1992***.

Exhibit 2. Urban Areas with Less Than 30 Hours Delay Per Auto Commuter



See data for your city at https://mobility.tamu.edu/umr/congestion-data/.

The 2020 congestion problem was much less than 2019 — it was also flatter. There was much less difference between the most and least congested urban regions. The traffic problems that did exist were spread over more hours of the day as travelers turned from rush hour commuters to midday shoppers and child transporters.

Exhibit 3 shows the historical congestion trend that until 2019 was a story of growing congestion. Even during the economic recession of 2008/9 there was no drop in total national travel delay. But 2020 congestion dropped by half — back to 1997 levels.

For more information and congestion data on your city, see: https://mobility.tamu.edu/umr/.

Exhibit 3. National Congestion Measures, 1982 to 2020

Year	U.S. Jobs (Millions)	Delay Hours/ Commuter	Total Delay (Billion Hours)	Fuel Wasted (Billion Gallons)	Total Cost (Billions of 2020 Dollars)
2020	143.8	27	4.3	1.7	101
2019	157.6	54	8.7	3.5	190
2018	156.2	54	8.6	3.4	188
2017	153.5	53	8.5	3.3	182
2016	151.4	52	8.3	3.3	175
2015	148.8	51	8.1	3.3	168
2014	146.3	49	7.9	3.2	166
2013	143.9	48	7.7	3.2	160
2012	142.5	46	7.4	3.1	153
2011	139.9	45	7.2	3.1	145
2010	139.1	44	6.9	3.0	135
2009	139.9	43	6.7	3.0	127
2008	145.4	42	6.6	3.1	129
2007	146.1	42	6.6	3.1	123
2006	144.4	42	6.5	3.0	117
2005	141.7	42	6.3	2.9	109
2004	139.2	41	6.1	2.8	101
2003	137.7	41	5.9	2.7	94
2002	136.5	40	5.6	2.6	88
2001	136.9	39	5.4	2.5	83
2000	136.9	38	5.1	2.4	77
1999	133.5	37	4.9	2.3	70
1998	131.5	36	4.6	2.1	65
1997	129.6	35	4.4	2.0	61
1996	126.7	34	4.2	1.9	56
1995	124.9	33	3.9	1.8	52
1994	123.1	32	3.7	1.7	47
1993	120.3	31	3.5	1.6	44
1992	118.5	30	3.3	1.5	40
1991	117.7	29	3.1	1.4	37
1990	118.8	28	2.9	1.3	33
1989	117.3	27	2.7	1.3	30
1988	115.0	26	2.6	1.2	27
1987	112.4	25	2.4	1.1	24
1986	109.6	24	2.3	1.1	22
1985	107.2	23	2.2	1.0	21
1984	105.0	22	2.0	0.9	19
1983	100.8	21	1.9	0.9	17
1982	99.5	20	1.7	0.8	15

Note: See Exhibit 1 for explanation of measures. For more congestion information see Tables 1 to 9. For congestion information on your city, see https://mobility.tamu.edu/umr/.

The Four Unique 2020s of Congestion

The four different 2020s were seen in passenger vehicle and truck speeds and travel delay across regions of different sizes. Exhibit 4 provides some context, showing the number of unemployed U.S. residents over 18 years old. By comparison, in February 2020, there were 101 million, and in May 2021 the value was 103 million (*4*). The drop in traffic volumes and congestion for four population groups from 2019 to 2020 are shown in Exhibits 5, 6, 7, and 8. There are some differences between big regions and smaller urban areas, but most of the changes were across the four different 2020s that we experienced.

- January and February 2020 volumes and congestion were slightly higher than 2019 values.
- March, April, and May 2020 saw the largest traffic volume and traffic congestion declines of any period of the *Urban Mobility Report*. Most urban areas engaged in some level of business shutdown, which caused 30 to 40 percent drops in traffic volume and 60 to 75 percent declines in congestion. Cars traveling near a speed limit of 60 mph in the peak periods in 2020 were going about 45 mph the year before. The regions with over 3 million people saw noticeably larger declines than the other three groups. ***This was like 1991.***
- As workforce travel patterns returned toward normal in the summer, delay grew, and the differences between population groups narrowed. Traffic began to return to the "rush hour," and delay increased more rapidly, especially in the largest regions. ***This was like 2000.***
- The four fall months saw slightly higher traffic volume and lower speeds. Rush hour congestion was more prevalent in the morning and evening, but travel delay increased to a level that was 40 to 50 percent lower than the 2019 benchmark. ***This was like 2005.***
- Truck volumes (Exhibit 6) were much closer to 2019 volumes across all time periods and population groups. Truck delay declined much more than truck traffic volume in 2020 (because speeds were very high), but truck delay rebounded to end the year at between 7 and 20 percent lower than 2019 delay (Exhibit 8).
- While there were trucking businesses that decreased operations, the increase in door-front and home-front deliveries offset the decline in store deliveries. The large amount of essential goods, equipment and services that are trucked meant that freight volumes were not as affected by the pandemic response.

Exhibit 4. Persons Over 18 Years Old Not Working — May 1 to December 31, 2020

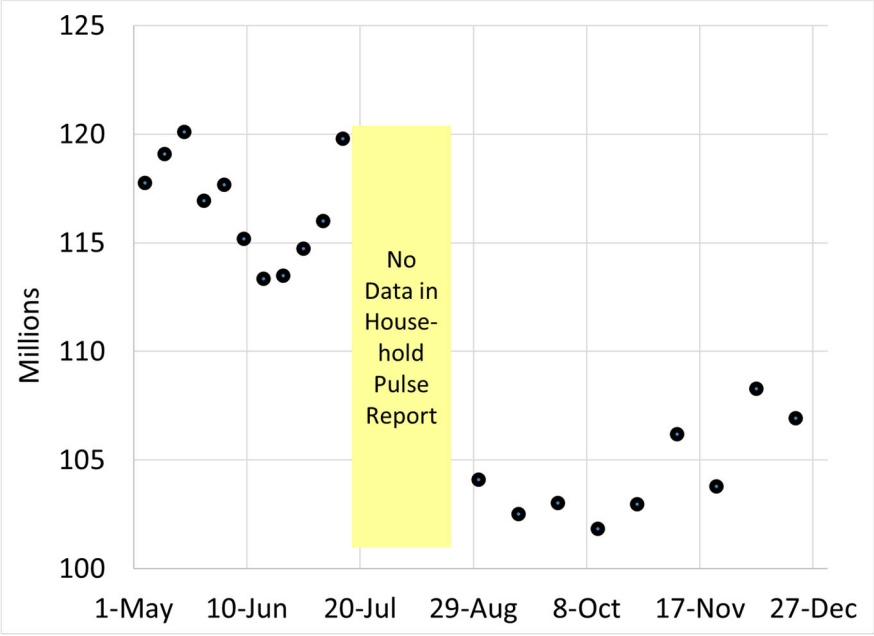


Exhibit 5. Change in 2020 Traffic Volumes Compared to 2019 Volumes

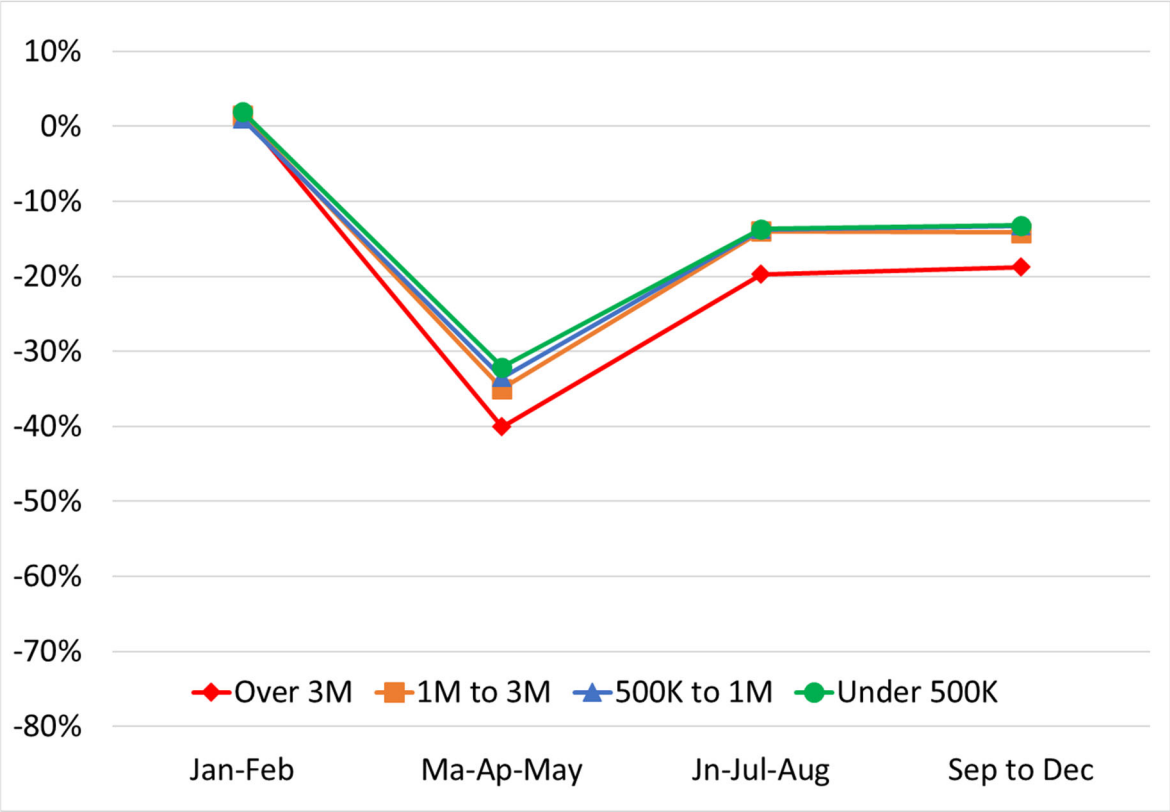


Exhibit 6. Change in 2020 Truck Traffic Volumes Compared to 2019 Truck Volumes

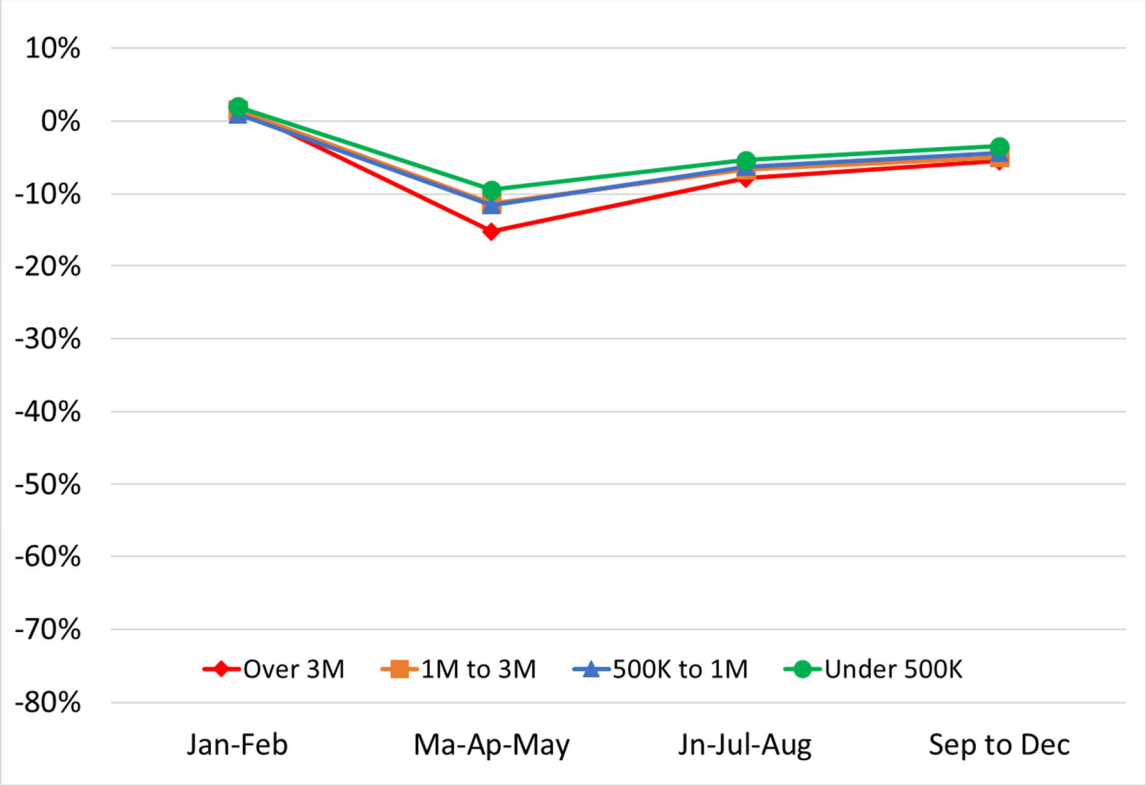


Exhibit 7. Change in 2020 Traffic Delay Compared to 2019 Delay

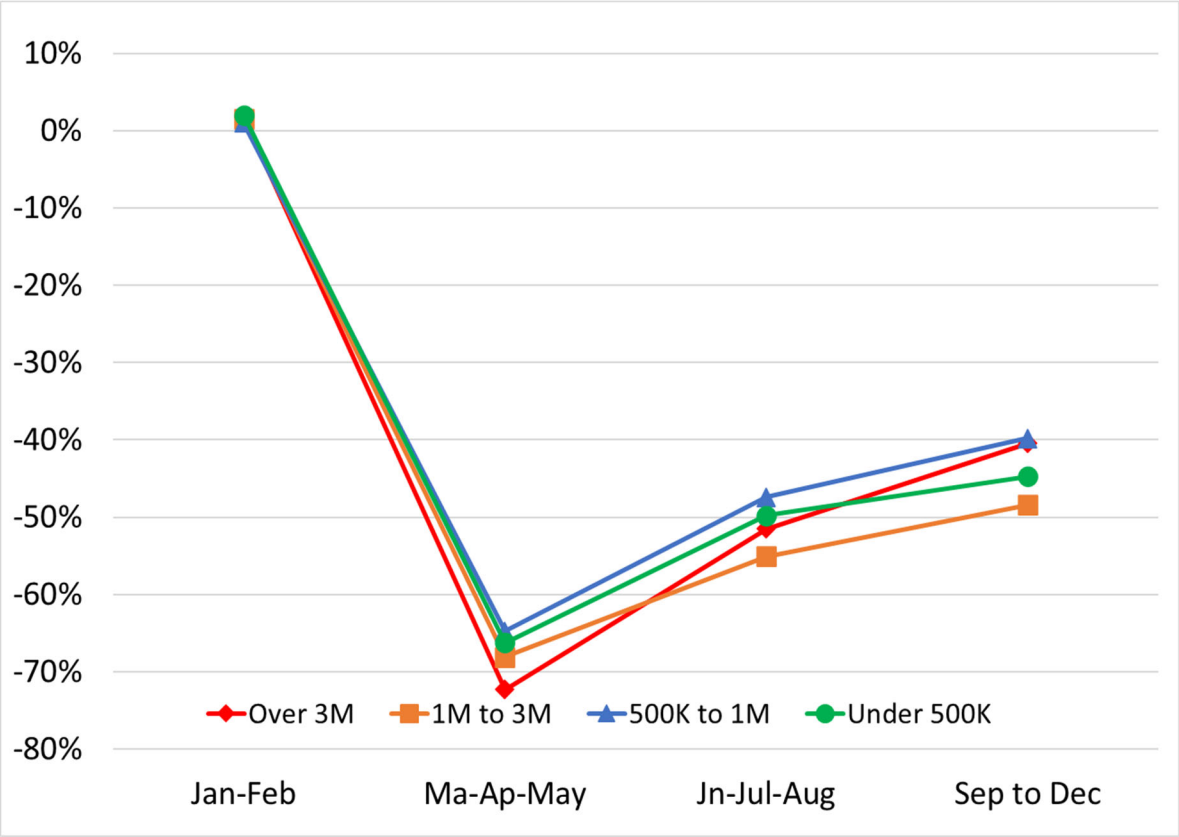
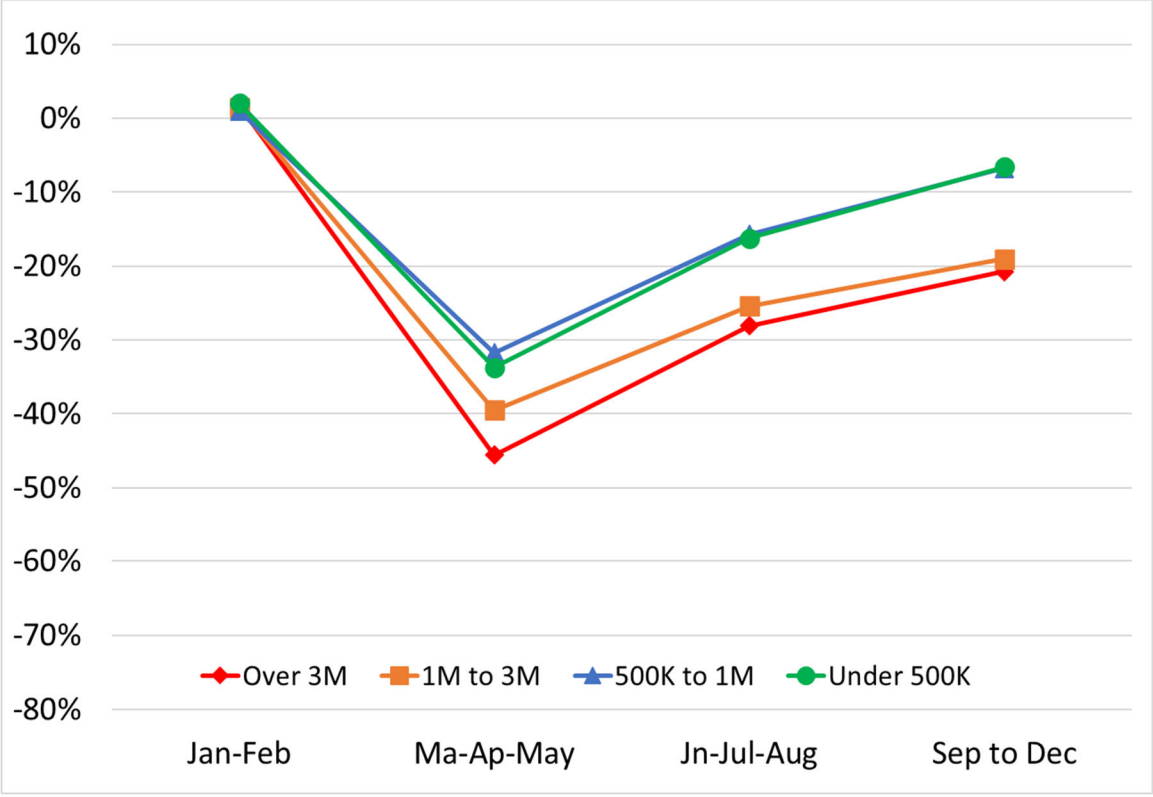


Exhibit 8. Change in 2020 Truck Traffic Delay Compared to 2019 Truck Delay



2020 Daily Congestion Was Also Flattened

While in 2020, U.S. cities were focused on "flattening the curve" to address the pandemic health emergency, they also flattened the travel delay curve. Exhibit 9 shows 2019 with a familiar pattern of morning rush hours followed by less delay in the midday and then several hours of bad evening congestion. Not only was there much less delay in 2020, but the morning peak is non-existent, and the 2020 evening worst hours are less than half of their 2019 counterparts. Fewer people traveling to work, or school was a substantial part of this trend, but many people also changed their patterns – they traveled in less crowded midday hours, or they were getting out after a workday spent inside a house or apartment.

Exhibit 9. Million Hours of Weekday Travel Delay for Hours of Day — 2019 and 2020

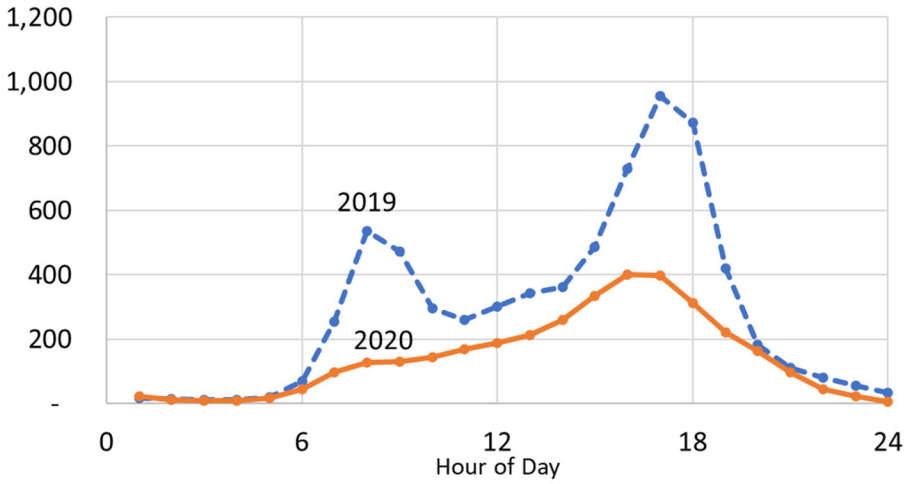
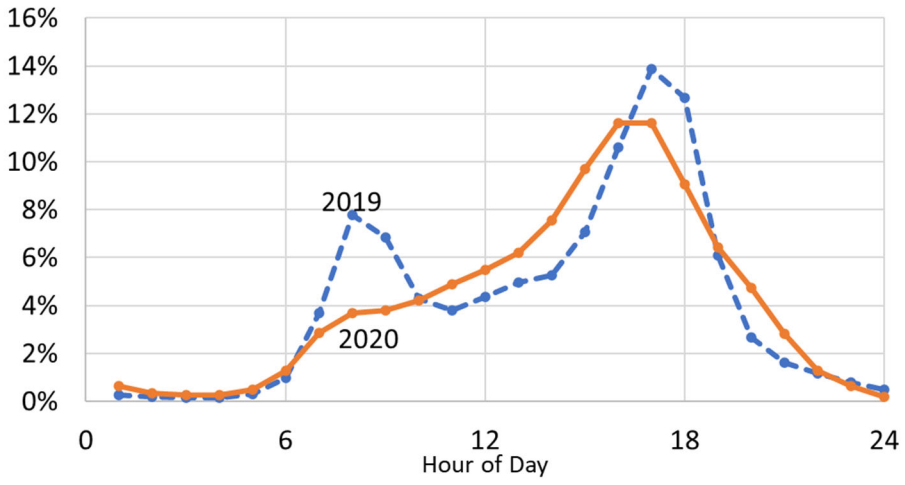


Exhibit 10 shows that the percentage of delay during the morning and evening hours was much lower in 2020. Delay shifted to midday hours and later in the day.

Exhibit 10. Percent of Delay for Hours of Day — 2019 and 2020



Annnnd The Week Was Also Flatter

Congestion builds through the week from Monday to Friday in regions of all sizes — this pattern was flatter in 2020. There was less delay in every day of 2020 than in 2019, but the reduction in rush hour commuting was much more, meaning weekend days represented more of the 2020 travel delay than in 2019 (Exhibits 11 and 12). There was a slight decline in delay percentage on each 2020 weekday compared to 2019. Weekend delay hours in 2020 were more than 70 percent of 2019 delay, while Tuesday, Wednesday, and Thursday delay were only about 45 percent of 2019.

Exhibit 11. Millions of Hours of Delay for Each Day

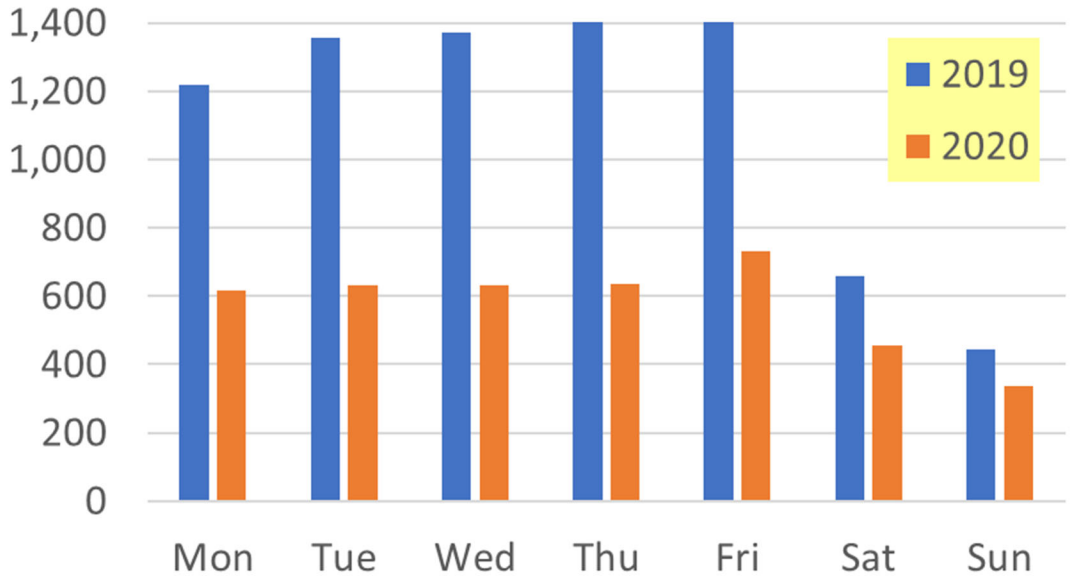
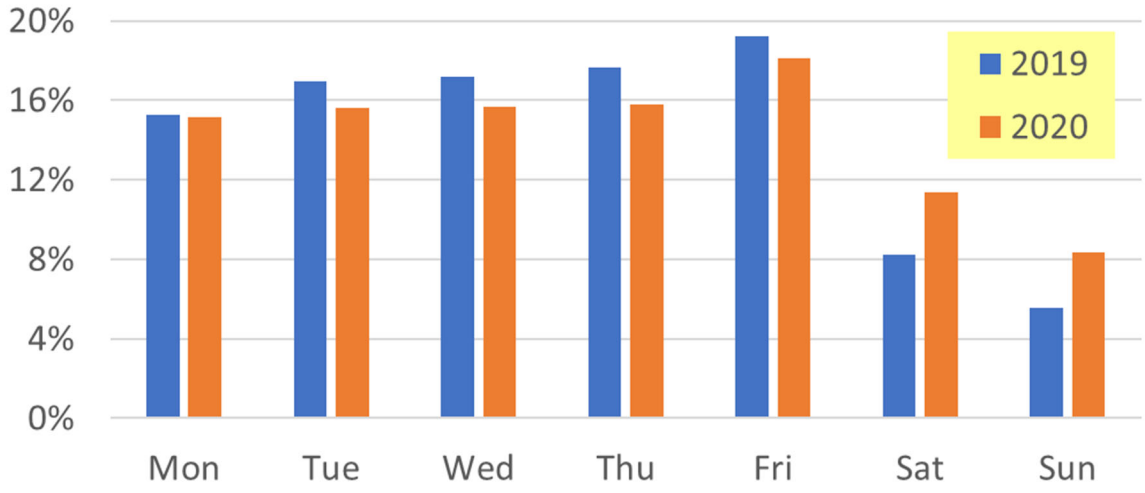


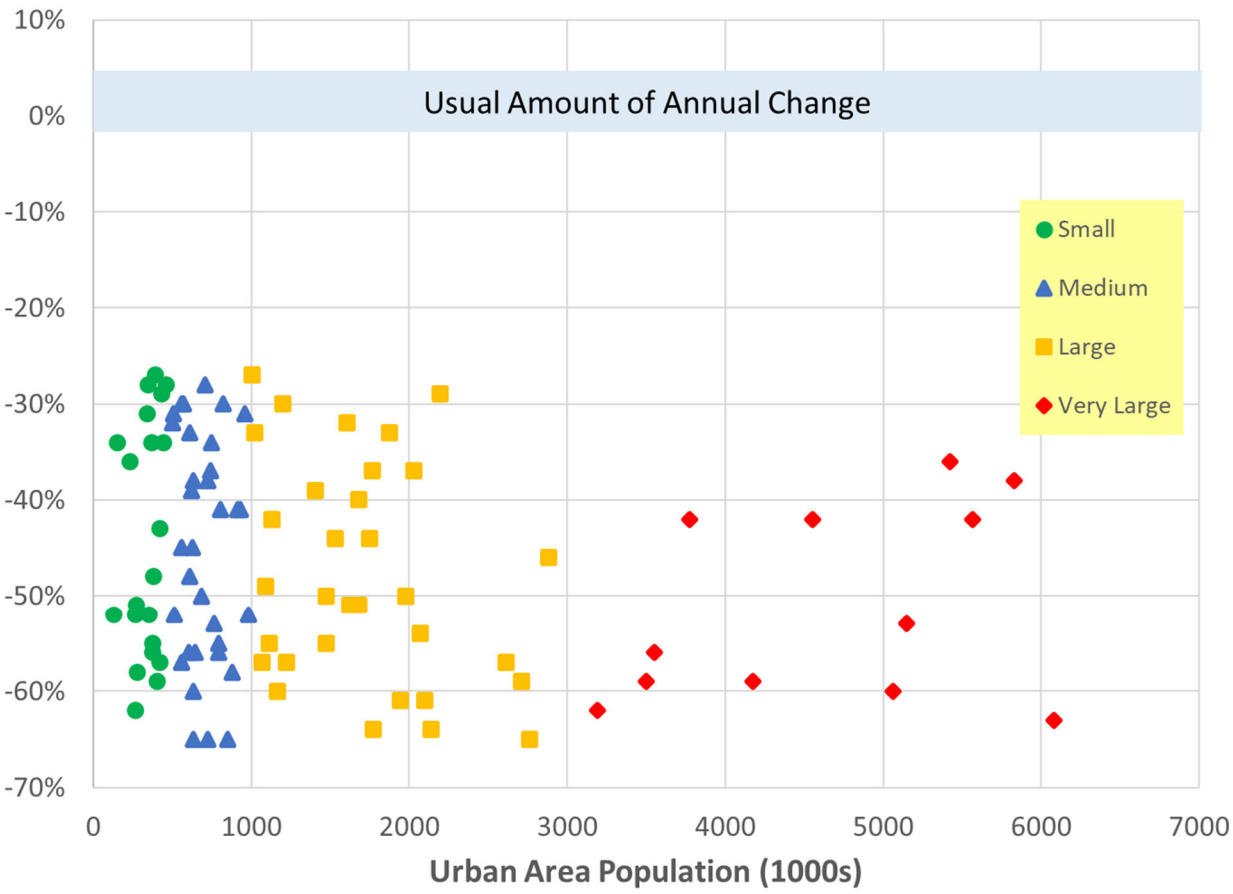
Exhibit 12. Percent of Delay for Each Day



Congestion Changes Were Not "Flat"

Travel delay in the 101 intensively studied urban areas was between 25 percent and 65 percent lower in 2020 than 2019 (Exhibit 13). Compared with the typical changes of a few percentage points up or down seen over the previous 38 years of the *Urban Mobility Report* (shown in the blue shading), these are massive changes. Even the economic recession of 2008/9 only saw a few urban area congestion declines of 10 percent. The 2020 declines occurred no matter what the urban area size, although regions with more than 3 million population have a somewhat smaller range.

Exhibit 13. 2020 Delay as a Percentage of 2019 Delay in 101 Urban Areas

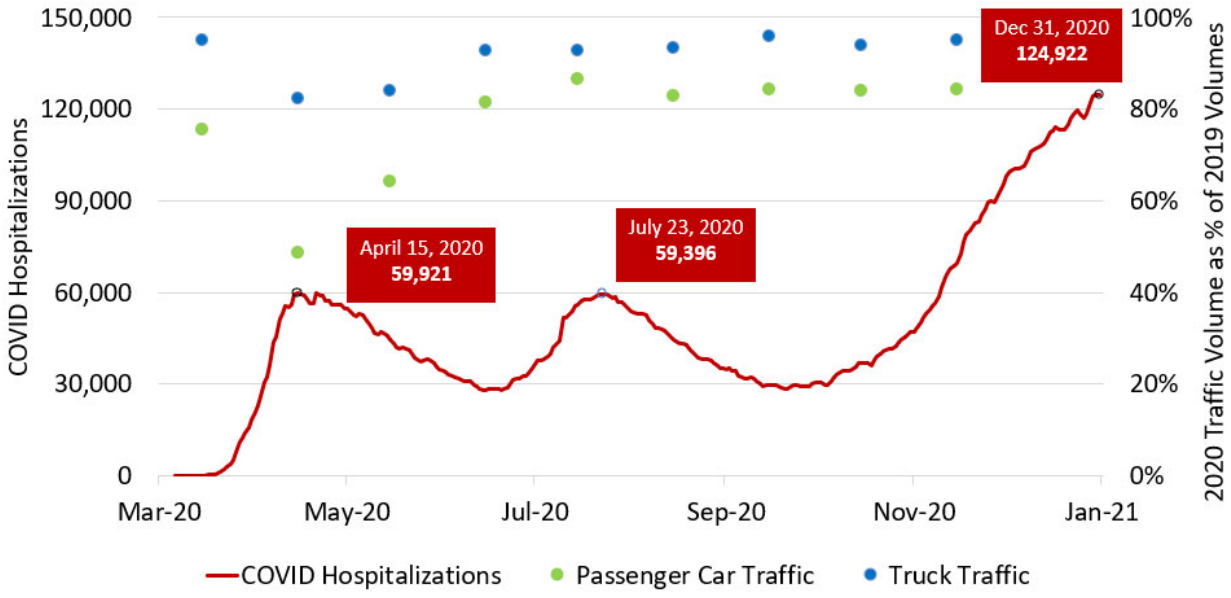


COVID-19 Health Problems

The recovery in traffic volumes and travel delay after the early summer was not in response to declines in COVID-19 related hospitalizations. Exhibit 14 is the national trend COVID-19 related hospitalization data that provides monthly context for the change in traffic volume from 2019 to 2020. Data were obtained from *The COVID Tracking Project at the Atlantic* (*5*) and INRIX (*3*). While there was a substantial amount of variation from state to state and city to city, the general pattern was for higher hospitalizations in mid-summer and then again during the late-fall and winter. Hospitalizations went down during March-April-May after the initial virus surge, but traffic volumes and congestion began to increase in May after experiencing the lowest levels in April. The summer and fall saw increases in hospitalizations that accompanied higher traffic volume and sustained returns of congestion. Hospitalizations went down after the initial peak in mid-April through early July. Traffic volumes and congestion began to increase in May after experiencing the lowest levels in April. The late-summer and then late-fall saw increases in hospitalizations that accompanied higher traffic volume and sustained growth in congestion.

The question of causation or association will be studied for many years, but the increases in traffic and congestion in the fall were occurring at the same time as COVID-19 hospitalizations were also peaking.

Exhibit 14. National COVID-19 Related Hospitalizations and Traffic Volumes During 2020



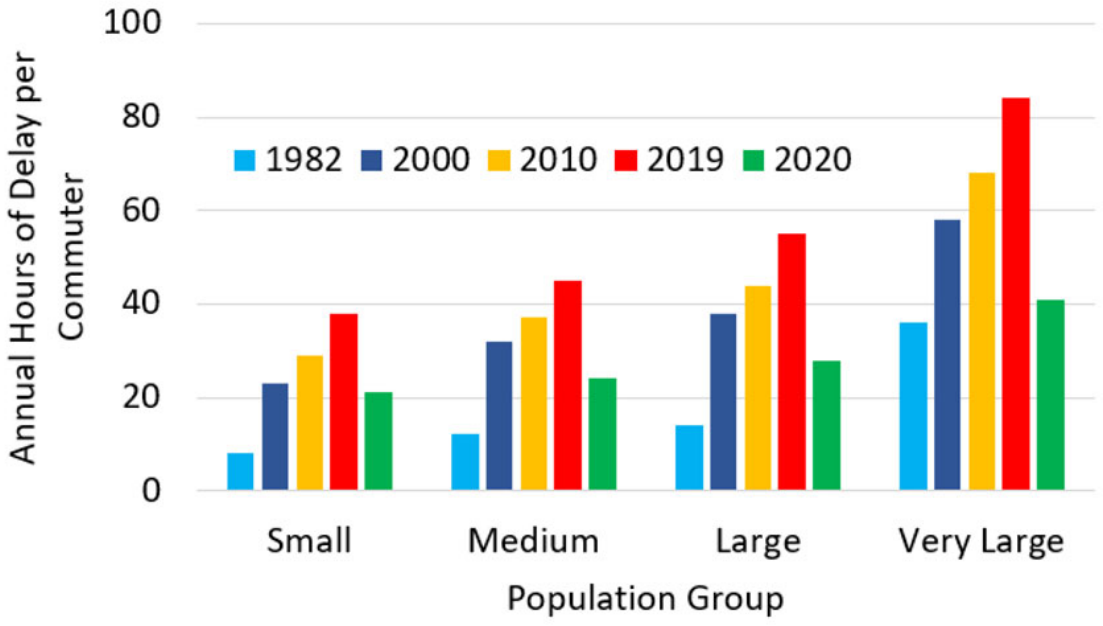
More Detail About Congestion Problems

Congestion, by every measure, increased substantially over the period from 1982 to 2019. But even with the dramatic decline in 2020 congestion levels, the trends in the last few months of 2020 point to a return of congestion problems in 2021. It will likely take some regions a few years to exceed the 2019 congestion levels, but other regions that have had growing population and job markets could bounce back very quickly. The underlying causes of traffic problems — too many car trips, too much rush hour roadwork, crashes, stalled vehicles, and weather issues — have not really receded so much as they have been eclipsed by the traffic volume decline.

Where the speed of congestion "recovery" after the 2008/9 economic recession depended on the return of local economies, the COVID-19 pandemic has highlighted the role of work-from-home and telework solutions. The type of jobs that can be done from home, and the acceptance of this mode by employees and employers, will be a significant determinant of congestion levels through the middle of this decade. Regions with many jobs that require on-site work — assembly lines, warehouses, tourism centers, and distribution centers, etc. — will probably see faster congestion increases than areas with more remote working.

Congestion has been growing in areas of every size. The *Urban Mobility Report* series shows consistent congestion growth across the entire urban area size spectrum until 2020 (Exhibit 15). The COVID-19 pandemic in essence "reset" congestion levels much more in the regions over 500,000 population than in the regions under 500,000. The difference between the very large and small group averages was halved in 2020, from 46 hours to 20 hours — more evidence of the flattening of congestion problems. The largest decline was seen in regions over 3 million where delay hours per auto commuter were close to the initial data year of 1982.

Exhibit 15. Congestion Growth Trend — Hours of Delay per Auto Commuter



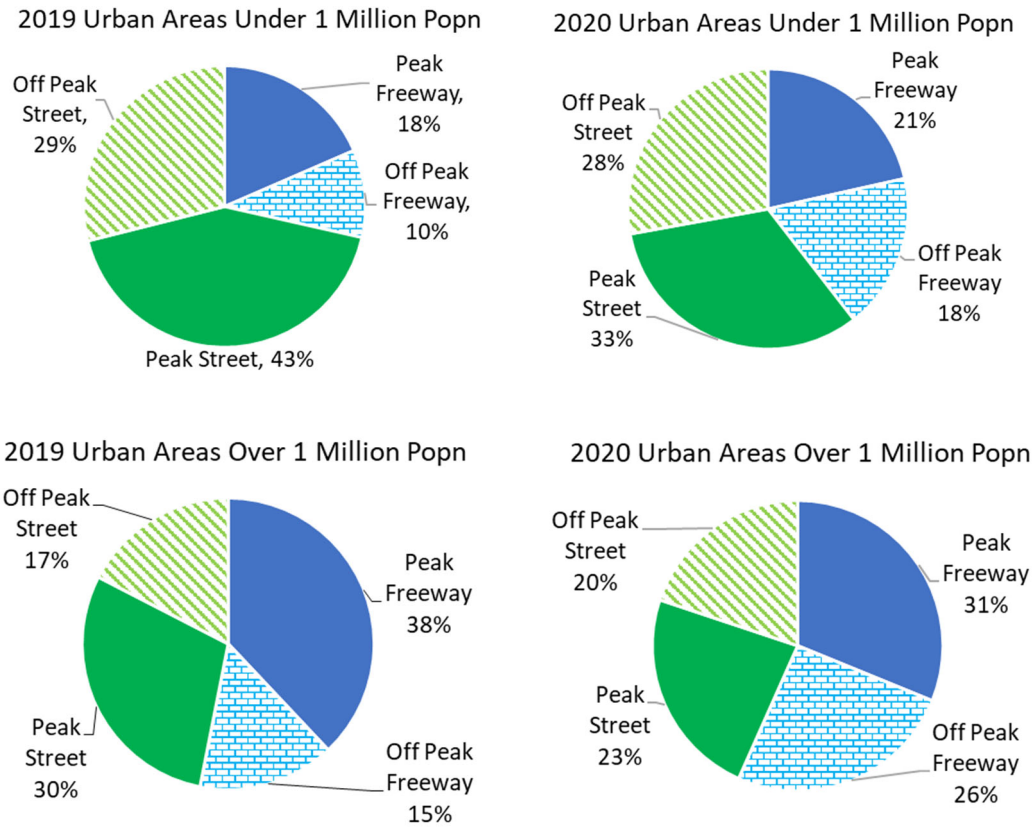
Small = less than 500,000
Medium = 500,000 to 1 million
Large = 1 million to 3 million
Very Large = more than 3 million

Changing Congestion on Freeways and Streets

Congestion patterns in areas under 1 million population have been different from those of over 1 million population. In 2020 those different relationships held, but the percentage of delay on streets and freeways changed dramatically.

- 2020 delay was about half of 2019 in both population groups.
- Travel delay moved toward freeways in both region sizes from 2019 to 2020 (Exhibit 16).
- There was more delay during off-peak periods in 2020 than in 2019.

Exhibit 16. Percent of Delay — Road Type and Time of Day



Urban Area Congestion Changes — 2019 to 2020

The delay per auto commuter statistic shows the most dramatic effect of the COVID-19 pandemic. The individual urban area changes in delay per auto commuter and total urban area delay from 2019 to 2020 in the 101 intensively studied urban areas are shown in Exhibit 17. The green shading indicates urban areas with fewer than 30 hours of extra travel time for the average auto commuter. Shading also illustrates areas with very large declines in regional delay totals — yellow with between 50 and 60 percent, and pink with greater than a 60 percent reduction.

- While there were only ***5 areas with less than 30 hours of extra travel time*** for a commuter in 2019, there were ***73 such regions in 2020***.
- The smallest decline in total delay from 2019 to 2020 was 27 percent. This decrease is twice as large as any ever recorded in the 101 areas over the 38 previous years of *Urban Mobility Report* data.

Exhibit 17. Area Delay and Delay per Auto Commuter Values — 2019 and 2020

Urban Area	Delay/Commuter (Person-Hours)				Total Annual Delay (1000 Hours)			
	2020	2019	Change	Rank	2020	2019	Change	Rank
Very Large Average (15 areas)	41	84	-43		152,347	312,680	-51%	
LA-Long Beach-Anaheim CA	46	119	-73	1	365,543	952,183	-62%	8
Washington DC-VA-MD	42	105	-63	2	101,775	256,476	-60%	13
San Francisco-Oakland CA	46	103	-57	3	112,507	255,724	-56%	27
Miami FL	27	74	-47	5	112,879	309,019	-63%	7
Seattle WA	31	77	-46	6	69,016	168,998	-59%	16
Atlanta GA	37	78	-41	8	109,475	230,899	-53%	37
New York-Newark NY-NJ-CT	56	96	-40	9	494,268	846,704	-42%	60
San Diego CA	24	64	-40	9	55,433	145,568	-62%	8
Boston MA-NH-RI	50	86	-36	16	122,348	209,231	-42%	60
Phoenix-Mesa AZ	25	61	-36	16	68,645	168,382	-59%	16
Chicago IL-IN	39	74	-35	20	172,876	331,657	-48%	51
Houston TX	49	76	-27	31	169,765	263,239	-36%	77
Philadelphia PA-NJ-DE-MD	37	63	-26	36	100,726	172,804	-42%	60
Dallas-Ft Worth-Arlington TX	40	65	-25	42	136,953	219,759	-38%	71
Detroit MI	35	60	-25	42	92,996	159,551	-42%	60
Large Average (32 areas)	24	55	-31		31,065	61,751	-50%	
San Jose CA	31	80	-49	4	46,377	118,687	-61%	11
Riverside-San Bernardino CA	25	64	-39	11	38,687	99,863	-61%	11
Orlando FL	22	61	-39	11	25,458	71,267	-64%	5
Nashville-Davidson TN	28	66	-38	13	25,770	59,525	-57%	22
Portland OR-WA	31	68	-37	14	36,065	78,309	-54%	36
Baltimore MD	27	63	-36	16	44,292	102,994	-57%	22
Denver-Aurora CO	26	62	-36	16	46,181	111,366	-59%	16
Tampa-St. Petersburg FL	18	53	-35	20	34,479	98,821	-65%	1
Jacksonville FL	21	53	-32	22	16,143	40,733	-60%	13
Las Vegas-Henderson NV	18	50	-32	22	21,702	60,761	-64%	5
Charlotte NC-SC	24	53	-29	26	23,138	51,737	-55%	32
San Juan PR	29	57	-28	28	38,667	77,006	-50%	47
Austin TX	41	68	-27	31	48,435	81,069	-40%	68
Minneapolis-St. Paul MN-WI	32	59	-27	31	59,835	110,297	-46%	54
Memphis TN-MS-AR	28	54	-26	36	16,285	31,809	-49%	50
Cincinnati OH-KY-IN	26	52	-26	36	28,436	57,734	-51%	44
Indianapolis IN	26	52	-26	36	23,362	47,617	-51%	44
Louisville-Jeff. County KY-IN	22	48	-26	36	13,886	30,610	-55%	32
Raleigh NC	17	40	-23	50	11,144	26,220	-57%	22
Columbus OH	27	49	-22	52	26,055	46,578	-44%	57
Virginia Beach VA	22	43	-21	54	19,220	38,378	-50%	47
San Antonio TX	32	52	-20	56	44,999	71,905	-37%	74
Salt Lake City-W Valley City UT	26	46	-20	56	17,124	29,571	-42%	60
Pittsburgh PA	25	45	-20	56	24,743	44,556	-44%	57
Sacramento CA	38	56	-18	64	47,492	71,079	-33%	83
Cleveland OH	29	47	-18	64	33,300	53,157	-37%	74
Milwaukee WI	29	47	-18	64	24,340	39,610	-39%	69
Kansas City MO-KS	34	50	-16	71	35,061	51,326	-32%	86
Providence RI-MA	33	47	-14	78	26,373	37,425	-30%	91
St. Louis MO-IL	33	46	-13	83	51,115	71,517	-29%	95
Oklahoma City OK	35	47	-12	88	30,057	41,004	-27%	100
Richmond VA	24	35	-11	90	15,862	23,510	-33%	83

Exhibit 17. Area Delay and Delay per Auto Commuter Values — 2019 and 2020, Continued

Urban Area	Delay/Commuter (Person-Hours)				Total Annual Delay (1000 Hours)			
	2020	2019	Change	Rank	2020	2019	Change	Rank
Medium Average (33 areas)	24	45	-21		11,391	21,251	-46%	
Honolulu HI	24	68	-44	7	13,365	38,532	-65%	1
Baton Rouge LA	24	61	-37	14	10,151	25,307	-60%	13
Charleston-N. Charleston SC	26	58	-32	22	10,973	24,780	-56%	27
Cape Coral FL	15	45	-30	25	7,399	21,377	-65%	1
Tucson AZ	21	50	-29	26	13,189	31,552	-58%	20
New Orleans LA	26	54	-28	28	24,668	51,289	-52%	39
Birmingham AL	23	51	-28	28	12,935	28,789	-55%	32
Albuquerque NM	22	47	-25	42	10,229	21,780	-53%	37
Columbia SC	19	44	-25	42	7,362	16,893	-56%	27
Omaha NE-IA	19	44	-25	42	9,777	22,404	-56%	27
Sarasota-Bradenton FL	12	35	-23	50	6,122	17,519	-65%	1
Knoxville TN	23	45	-22	52	9,058	17,570	-48%	51
Hartford CT	31	52	-21	54	16,928	28,583	-41%	65
Buffalo NY	29	49	-20	56	16,005	27,343	-41%	65
Toledo OH-MI	19	39	-20	56	5,328	11,042	-52%	39
Colorado Springs CO	29	48	-19	61	12,116	20,010	-39%	69
Grand Rapids MI	22	41	-19	61	9,472	17,240	-45%	55
Bridgeport-Stamford CT-NY	40	58	-18	64	27,235	39,387	-31%	88
Allentown PA-NJ	19	37	-18	64	7,535	14,953	-50%	47
McAllen TX	25	42	-17	70	13,202	22,555	-41%	65
Albany-Schenectady NY	33	49	-16	71	10,518	15,617	-33%	83
Rochester NY	26	41	-15	74	10,199	16,489	-38%	71
Springfield MA-CT	25	40	-15	74	9,391	15,218	-38%	71
Bakersfield CA	11	26	-15	74	4,211	9,684	-57%	22
Worcester MA-CT	28	42	-14	78	8,922	13,085	-32%	86
Tulsa OK	27	41	-14	78	14,440	21,870	-34%	79
El Paso TX-NM	32	45	-13	83	17,490	24,967	-30%	91
New Haven CT	31	44	-13	83	10,778	15,397	-30%	91
Provo-Orem UT	15	27	-12	88	5,275	9,621	-45%	55
Fresno CA	29	40	-11	90	13,890	19,335	-28%	97
Akron OH	27	38	-11	90	11,120	15,835	-30%	91
Wichita KS	25	36	-11	90	7,423	10,790	-31%	88
Dayton OH	21	32	-11	90	9,187	14,481	-37%	74
Small Average (21 areas)	21	38	-17		5,092	8,855	-42%	
Pensacola FL-AL	21	48	-27	31	4,695	10,537	-55%	32
Spokane WA	20	47	-27	31	5,114	11,913	-57%	22
Boise ID	18	44	-26	36	5,102	12,525	-59%	16
Boulder CO	23	48	-25	42	2,312	4,865	-52%	39
Anchorage AK	18	43	-25	42	3,080	7,304	-58%	20
Salem OR	15	40	-25	42	2,541	6,772	-62%	8
Eugene OR	19	38	-19	61	3,172	6,504	-51%	44
Laredo TX	17	35	-18	64	3,594	7,487	-52%	39
Oxnard CA	18	34	-16	71	3,379	6,499	-48%	51
Jackson MS	29	44	-15	74	8,409	12,836	-34%	79
Beaumont TX	28	42	-14	78	3,154	4,772	-34%	79
Madison WI	28	42	-14	78	7,945	12,064	-34%	79
Little Rock AR	33	46	-13	83	14,655	20,266	-28%	97
Brownsville TX	23	36	-13	83	3,788	5,944	-36%	77
Corpus Christi TX	28	39	-11	90	7,103	9,813	-28%	97
Greensboro NC	25	36	-11	90	5,320	7,697	-31%	88
Winston-Salem NC	15	26	-11	90	4,455	7,752	-43%	59
Lancaster-Palmdale CA	10	21	-11	90	2,456	5,089	-52%	39
Poughkeepsie-Newburgh NY-NJ	26	36	-10	99	6,204	8,682	-29%	95
Stockton CA	25	34	-9	100	7,899	10,797	-27%	100
Indio-Cathedral City CA	6	14	-8	101	2,557	5,832	-56%	27
101 Area Average	33	67	-34		37,249	74,787	-50%	
Remaining Areas Average	11	23	-12		1,754	3,497	-50%	
All 494 Area Average	27	54	-27		9,011	18,072	-50%	

Truckers Kept on Trucking in 2020

Perhaps no year in recent history has seen more attention brought to trucking, transportation logistics, and the global supply chain than during the pandemic in 2020. We all found ourselves asking why basic grocery items, including toilet paper, water, and disinfecting wipes, were not on store shelves. The pandemic impacted supply chains, but through it all, truckers — among the most essential of workers — kept on delivering the goods in our time of need.

But delivering the goods comes at a price. In 2020, the price tag for truck congestion was about $11.3 billion in wasted time and fuel. Truck congestion was 12 percent of the total congestion cost. Only 23 percent of the $11 billion truck congestion cost is in the largest 15 urban areas, illustrating that truck congestion is a problem spread throughout all urban areas. The share of truck cost to the total congestion cost has gone up from 11 percent in 2019 to 12 percent in 2020.

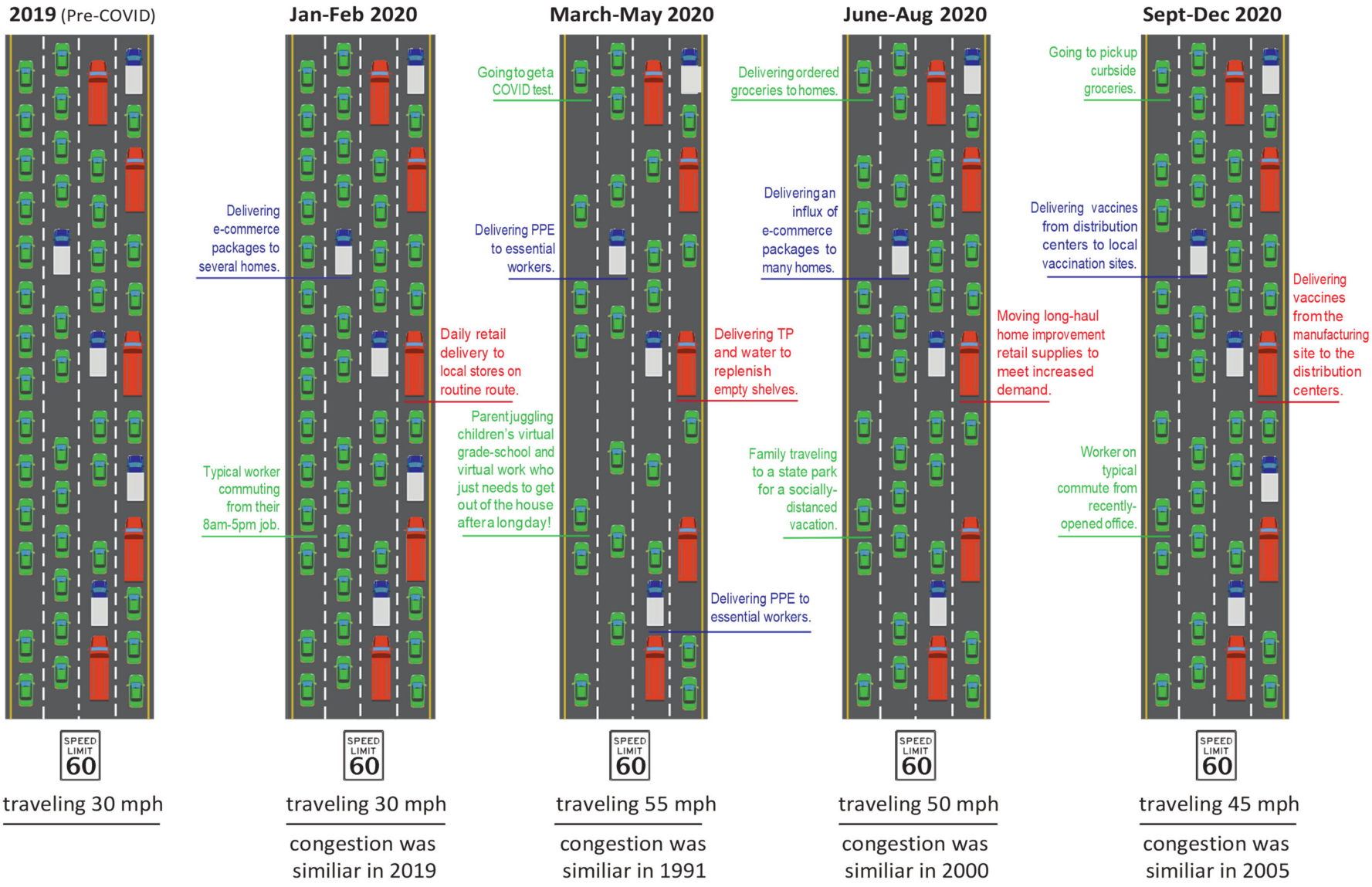
To supply the entire United States with essential goods in 2020, truckers shifted to the typically off-peak periods. The results show that supply chains kick in at night and the early morning to supply the demand for goods and services throughout the day and around the clock. A few 2020 trucking highlights include:

- Over half (53 percent) of the truck delay occurred in the off-peak period in 2020, in comparison to 40 percent in 2019.
- In cities under 1 million in population, there was a 40 percent increase in truck delay over 2019 in the freeway off-peak period.
- In cities over 1 million in population, the largest percentage of truck delay (38 percent) occurs in the freeway off-peak period.
- More of the truck delay was incurred on weekends in 2020 (21 percent) than in 2019 (15 percent) in all city sizes.
- There was 30 percent more truck delay between 7 p.m. and 10 p.m. in cities of all sizes in 2020 than 2019.
- In 2020, 30 percent more truck delay occurred between midnight and 3 a.m. in cities over 1 million in population than in 2019.
- Very large port cities known for their freight traffic top the list in person-hours of truck delay and truck delay congestion, including NYC (#1), LA (#2), Chicago (#3) and Houston (#4).

Exhibit 18 shows typical peak-period roadway cross sections illustrating traffic characteristics in 2019 in comparison to the four unique traffic time periods of 2020. One can immediately see how traffic volumes dropped off substantially in March–May 2020 (see Exhibits 5 and 6), and then slowly increased in traffic volume. Exhibit 18 also illustrates that the number of small delivery trucks and big trucks did not dip nearly as much as passenger cars — their numbers stay relatively consistent throughout the pandemic period. Annotations on Exhibit 18 demonstrate how trips changed throughout 2020 due to changing trip needs and behaviors.

Trucking infrastructure investments are critically important (for example, adding capacity to roadways and improvements to last-mile connectors to ports, intermodal facilities, and airports). In dense, urban settings, curb management to effectively balance curb use by numerous users is vital. Incorporating all solutions to facilitate goods movement is imperative, particularly given the rise in e-commerce, which only increased because of the pandemic.

Exhibit 18. Congestion Visualization of 2019 and the Four Unique 2020 Time Periods



Congestion Relief — An Overview of the Strategies

We still recommend a ***balanced and diversified approach*** to reduce congestion — one that focuses on more of everything; more policies, programs, projects, flexibility, options, and understanding. The massive drop in 2020 congestion will certainly be followed by a return of congestion problems. Through 2019, investments in solutions did not keep pace with the growing problem. On the hopeful side, state departments of transportation, urban planners, employers, and employees now see the strength of telework programs, bike, and walk modes, as well as the social benefits of providing workers with more job location flexibility.

The right solution to a mobility issue, however, is not the same everywhere all the time. Every solution is targeted somewhere to accomplish a specific goal, but every solution is not right for every location, opportunity, or problem. Context is the important starting point for identifying mobility solutions. ***Anyone who tells you there is a single solution that can solve congestion, be supported, and be implemented everywhere (or even in most locations) is exaggerating the effect of their idea.***

Some solutions need more congestion before they are fully effective, and some can be very useful in mitigating congestion before it becomes a big problem. There is almost always a role for providing more travel options and operating the system more efficiently. The effects of these solutions are important but, especially in growing regions, they are not usually enough to meet community mobility goals. The private sector, the economy, and government regulations all play a role. Some cities have growth near downtowns that provide good home and work options but rarely determine regional growth trends. Governments have been streamlining regulations to make near-downtown development as easy to do as suburban developments.

More information on the possible solutions, places they have been implemented, and their effects can be found on the website: https://mobility.tamu.edu/project/mobility-improvement-strategies/

None of these ideas are the entire mobility solution, but they can all play a role.

- **Get as much as possible from what we have** — "Get the best bang for the buck" is the theme here. Many low-cost improvements have broad public support and can be rapidly deployed. Operations improvement programs require innovation; new monitoring technologies and staffing plans; constant attention; and adjustment, but they pay dividends in faster, safer, and more reliable travel. Rapidly removing crashed vehicles, timing the traffic signals so that more vehicles see green lights, and improving road and intersection designs are relatively simple actions. More complex changes such as traffic signals that rapidly adapt to different traffic patterns, systems that smooth traffic flow and reduce traffic collisions, and communication technologies that assist travelers (in all modes) also play a role.
- **Provide choices** — "Customize your trip" might involve different travel routes, departure times, travel modes, or lanes that require a toll for high-speed and reliable service. These options allow travelers and shippers to make trips when, where, and in a form that best suits their needs and wants. There are many sources of travel information involving displays of existing travel times, locations of roadwork or crashes, transit ridership and arrival information, and a variety of trip planner resources. The solutions also involve changes in the way employers and travelers conduct business to avoid traveling in the traditional rush hours. The COVID-19 pandemic response demonstrated that flexible work hours and good internet connections allow employees to choose work schedules that meet family needs *and* the needs of their jobs.

- **Technology advances** also hold promise as solutions. While we are not yet at the "meet George Jetson" level of technology, the technology disruptors coming to market every week will alter the urban mobility landscape. The depth and breadth of the detailed crowdsourced data from INRIX has improved this report, and an increasingly connected world will offer more opportunities to understand and improve the movement of people and goods. Connected vehicles "talking" to each other, as well as traffic signals and other systems — and providing this information to decision-makers — will provide unprecedented data and insights to identify and fix mobility problems. Newer vehicles sense and adjust to their surroundings, increasing safety and efficient movement of goods and people. Other technologies, such as the Internet of Things (connected devices), 3D printers, blockchain, and artificial intelligence will affect transportation systems of the future. Will the mobility improvements of these technologies offset induced trips or other unforeseen mobility consequences? In many cases, it will. Again, *context* is the key, and the jury is still out on the evolving impacts.
- **Add capacity in critical corridors** — We just need "more" in some places. Increases in freight and person movement often require new or expanded facilities. Important corridors or growing regions can benefit from more street and highway lanes, new or expanded public transportation facilities, and larger bus and rail fleets. Some of the "more" will be better paths and routes for bicyclists and pedestrians. Some of the "more" will also be in the form of advancements in connected and autonomous vehicles that reduce crashes and congestion — cars, trucks, buses, and trains that communicate with each other and with the transportation network.
- **Diversify the development patterns** — "Everyone doesn't want to live in <fill in the blank>" is a discussion in most urban regions. It is always true — because there is no one-size-fits-all home type. The market is diverse for the same reasons as the U.S. culture, economy, and society is varied. The "real market" includes denser developments with a mix of jobs, shops, and homes (so that more people can walk, bike, or take transit to more and closer destinations). Also, urban residential patterns of moderate density single-family and multi-family buildings, and suburban residential and commercial developments are popular. Sustaining a good quality-of-life and gaining economic opportunity without the typical increment of congestion in each of these sub-regions appears to be part, but not all, of the mobility solution. Recognizing that many home and job location choices are the result of choices about family needs, education preferences, and entertainment and cultural sites allows planners to adjust projects and policies to meet these varied markets.
- **Realistic expectations** are also part of the solution. Large urban areas will be congested. Some locations near key activity centers in smaller urban areas will also be congested. Identifying solutions and funding sources that are equitable and meet a variety of community goals is challenging enough without attempting to always eliminate congestion in all locations. Congestion, however, does not have to be an all-day event. In many cases, improving travel time awareness and predictability can be a positive first step toward improving urban mobility.

Case studies, analytical methods, and data — and now the experience with adjustments to the COVID-19 pandemic — are available to support development of these strategies and monitor the effectiveness of deployments. There are also many good state and regional mobility reports that provide ideas for communicating the findings of the data analysis.

How Did We Estimate Congestion?

We started with very detailed traffic speed data from INRIX (*3*). We developed traffic volume estimates for four different sets of months during 2020. Those two datasets were combined to get estimates of the extra travel time to make a trip. The *2021 Urban Mobility Report* uses hundreds of speed data points for every 15 minutes of the average day of the week for almost every mile of major roadway in urban America. More than a billion speeds across 1.5 million miles of U.S. streets and highways means congestion trends and problems can be described in detail, and solutions targeted to community goals.

Key methodological aspects of the *2021 Urban Mobility Report* are summarized below.

- The initial data analysis identified four distinct groups of 2020 months. The INRIX vehicle speed data and traffic volume estimates from each of these four were combined to create the 2020 mobility estimates.
- Creating four datasets instead of only one meant that some traditional analyses were not performed. The travel time reliability information that describes how much congestion varies from day-to-day was a casualty of the analysis effort. In 2020, reliability was generally much better due to lower volumes. These data will return in the next *Urban Mobility Report*.
- The number of auto commuters were assumed at 2019 levels for the 2020 delay per auto commuter calculations. This results in a higher number of auto commuters than were present during the pandemic in 2020 and a lower delay per auto commuter value. This recognizes the difficulty of estimating the monthly variation in urban auto commuters and provides an opportunity to see what the 51 percent reduction in total delay (Exhibit 1) looks like from 2019 to 2020 given "all else equal."
- The average vehicle occupancy (AVO) from the pre-pandemic was used in 2020 because there was not a consistent, updated data source for the pandemic AVO. Keeping AVO consistent allowed for a comparison from 2019 to 2020 with "all else equal" (similar to auto commuters mentioned above).
- Previous reports had estimated many speeds, especially on minor roads and in non-peak periods. The greatly expanded INRIX traffic speed dataset, however, meant that more than 97 percent of the 2019 travel delay was based on a measured traffic speed. With traffic volumes down, fewer speeds were collected in 2020. The 2020 percentage of measured delay slipped to 88 percent, but that is still a higher value than any *Urban Mobility Report* before 2018.
- More detail on the methodologies and analytical components are in the Appendices at: https://mobility.tamu.edu/umr/report/#methodology
    - The methodology is described in Appendix A on the mobility study website (*6*).
    - An updated vehicle occupancy value is used to reflect travel changes (*7*). (Appendix B)
    - The value of congested travel time is measured by the median hourly wage for all job classifications in the Occupational Employment Statistics series by the U.S. Bureau of Labor Statistics (*8*). (Appendix C)
    - Commercial truck operating cost estimates are drawn from the American Transportation Research Institute's annual survey of their membership (estimated for 2020 because 2019 was not available) (*8*). (Appendix C)
- Key performance measures used in the *2021 Urban Mobility Report* are:
    - Yearly delay per auto commuter — The extra travel time during the year due to congested speeds rather than free-flow speeds by private vehicle drivers and passengers who typically travel in the peak periods.
    - Travel Time Index (TTI) — The ratio of travel time in the peak period to the travel time at free-flow conditions. A Travel Time Index of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.
    - Congestion cost — The yearly value of delay time and wasted fuel by all vehicles.
    - Traffic volume — Miles traveled by all vehicles during the year.

More information on INRIX can be found at www.inrix.com.

What Does 2020 Mean?

The changes in travel and congestion levels during the 2020 COVID-19 pandemic were massive. The declines in congestion were unprecedented. The smallest decline in extra travel time for the average auto commuter in the 101 intensively studied areas from 2019 to 2020 was 8 hours; there were only 6 urban areas that saw a decline of more than 3 hours per auto commuter during the economic recession. With 2020 total congestion cost half of the 2019 level, the "congestion recovery" may take a few years, but it also seems clear that some aspects of the problem and the solutions may have changed forever.

But if we try to use that experience to make decisions about the future, it is difficult to know what has been learned from the past year.

- How soon will the employment market bounce back?
- To what extent will office workers continue to work from home?
- How does the type of jobs in the travel corridor affect the congestion patterns, and which mobility solutions will work best for that job mix?
- Will trip departure times remain similar — fewer auto trips in the normal rush hours, and more travel in the midday and early evening?
- Will public transportation ridership rebound?
- Will construction projects fast-tracked during the pandemic have an effect?
- What are the effects of transportation and land use changes given where people choose to work, live, shop, go to school, and recreate?
- How will the shift in where businesses and people locate affect how, where, and when goods are moved?

On some level, congestion analysis of 2020 data will never be relevant again; the conditions are not likely to be repeated. On the other hand, the conditions are like some of those in the past. The connection between the economy and congestion has been very solid. The great recession in 2008/9 caused a national reduction in traffic congestion, and other regional recessions have also caused congestion reductions.

Early 2021 suggests that the economy and congestion are rebounding, but the answers to the above questions will go a long way toward determining the mobility problems and solutions in the next decade. All the potential congestion-reducing strategies should be considered, and there is a role and location for most of the strategies:

- The COVID-19 pandemic reaction has convinced employers and workers that many more tasks can be accomplished remotely. ***This will not be the same everywhere for every job.*** Some employers might require in-person attendance. Some may allow full-time, not-in-an-office work schedule. Some will encourage telework for a few days each week or even just a few hours each day.
- Rapidly clearing crashes and stalled vehicles, efficiently timing the traffic signals, getting reliable information to travelers so that they can plan their trip — all of these are ways to get the "best bang for the buck" productivity out of the existing road and public transportation systems.
- In growth corridors, there also may be a role for additional road and public transportation capacity to move people and freight more rapidly and reliably.
- Some areas are seeing renewed interest in higher density living in neighborhoods with a mix of residential, office, shopping, and other developments. These places can promote shorter trips that are more amenable to walking, cycling, or public transportation modes.

References

1. U.S. Bureau of Labor Statistics, U.S. Department of Labor. Current Employment Statistics—CES (National). Accessed 2020. http://www.bls.gov/ces/home.htm.

2. Federal Highway Administration. Highway Performance Monitoring System (HPMS), 1982 to 2019 Data. December 2020. Accessed 2021. http://www.fhwa.dot.gov/policyinformation/hpms.cfm.

3. INRIX. National Average Speed Database, 2009 to 2020. Accessed 2021. http://www.inrix.com/.

4. U.S. Census Bureau, U.S. Department of Commerce. Household Pulse Survey Data Tables. Accessed 2021. https://www.census.gov/programs-surveys/household-pulse-survey/data.html.

5. The Atlantic. The Covid Tracking Project. Accessed 2021. https://covidtracking.com.

6. David Schrank, Bill Eisele, and Tim Lomax. Appendix A: Methodology. *2019 Urban Mobility Report*, Texas A&M Transportation Institute, August 2019. Accessed 2021. https://mobility.tamu.edu/umr/report/#methodology.

7. Phil Lasley. Appendix B: Change in Vehicle Occupancy Used in Mobility Monitoring Efforts. *2019 Urban Mobility Report*, Texas A&M Transportation Institute, August 2019. Accessed 2021. https://mobility.tamu.edu/umr/report/#appx-b.

8. David R. Ellis and Brianne A. Glover. Appendix C: Value of Delay Time for Use in Mobility Monitoring Efforts. *2019 Urban Mobility Report*, Texas A&M Transportation Institute, August 2019. Accessed 2021. https://mobility.tamu.edu/umr/report/#appx-c.

Comparison Tables — Congestion in 2019 and 2020
Additional Information for Urban Areas

Table 1. What Congestion Means to You

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Travel Time Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Index	Rank	Index	Rank
Very Large Average (15 areas)	**41**		**84**		**1.13**		**1.35**	
New York-Newark, NY-NJ-CT	56	1	96	4	1.17	1	1.36	6
Boston, MA-NH-RI	50	2	86	5	1.12	10	1.28	21
Houston, TX	49	3	76	9	1.15	4	1.34	10
Los Angeles-Long Beach-Anaheim, CA	46	4	119	1	1.16	2	1.52	1
San Francisco-Oakland, CA	46	4	103	3	1.16	2	1.51	2
Washington, DC-VA-MD	42	6	105	2	1.12	10	1.36	6
Dallas-Fort Worth-Arlington, TX	40	8	65	16	1.12	10	1.25	25
Chicago, IL-IN	39	10	74	10	1.10	29	1.29	19
Atlanta, GA	37	12	78	7	1.10	29	1.30	17
Philadelphia, PA-NJ-DE-MD	37	12	63	19	1.12	10	1.24	28
Detroit, MI	35	14	60	25	1.12	10	1.23	31
Seattle, WA	31	24	77	8	1.11	20	1.37	5
Miami, FL	27	42	74	10	1.11	20	1.34	10
Phoenix-Mesa, AZ	25	55	61	22	1.08	44	1.29	19
San Diego, CA	24	63	64	17	1.10	29	1.34	10

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 1. What Congestion Means to You, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Travel Time Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Index	Rank	Index	Rank
Large Average (32 areas)	**28**		**55**		**1.09**		**1.24**	
Austin, TX	41	7	68	12	1.13	6	1.35	8
Sacramento, CA	38	11	56	30	1.11	20	1.27	22
Oklahoma City, OK	35	14	47	51	1.12	10	1.20	38
Kansas City, MO-KS	34	16	50	41	1.10	29	1.16	59
Providence, RI-MA	33	17	47	51	1.13	6	1.16	59
St. Louis, MO-IL	33	17	46	57	1.08	44	1.14	79
Minneapolis-St. Paul, MN-WI	32	21	59	26	1.11	20	1.26	23
San Antonio, TX	32	21	52	36	1.12	10	1.23	31
Portland, OR-WA	31	24	68	12	1.10	29	1.35	8
San Jose, CA	31	24	80	6	1.12	10	1.44	3
Cleveland, OH	29	29	47	51	1.08	44	1.14	79
Milwaukee, WI	29	29	47	51	1.07	57	1.16	59
San Juan, PR	29	29	57	29	1.13	6	1.32	15
Memphis, TN-MS-AR	28	36	54	31	1.08	44	1.18	41
Nashville-Davidson, TN	28	36	66	15	1.06	75	1.23	31
Baltimore, MD	27	42	63	19	1.07	57	1.26	23
Columbus, OH	27	42	49	44	1.08	44	1.18	41
Cincinnati, OH-KY-IN	26	47	52	36	1.06	75	1.17	49
Denver-Aurora, CO	26	47	62	21	1.09	40	1.32	15
Indianapolis, IN	26	47	52	36	1.06	75	1.18	41
Salt Lake City-West Valley City, UT	26	47	46	57	1.06	75	1.17	49
Pittsburgh, PA	25	55	45	60	1.08	44	1.18	41
Riverside-San Bernardino, CA	25	55	64	17	1.08	44	1.33	13
Charlotte, NC-SC	24	63	53	33	1.06	75	1.22	34
Richmond, VA	24	63	35	91	1.07	57	1.12	91
Louisville-Jefferson County, KY-IN	22	72	48	47	1.05	85	1.17	49
Orlando, FL	22	72	61	22	1.07	57	1.24	28
Virginia Beach, VA	22	72	43	69	1.06	75	1.16	59
Jacksonville, FL	21	77	53	33	1.06	75	1.21	37
Las Vegas-Henderson, NV	18	87	50	41	1.07	57	1.25	25
Tampa-St. Petersburg, FL	18	87	53	33	1.08	44	1.25	25
Raleigh, NC	17	92	40	78	1.05	85	1.17	49

Large Urban Areas—over 1 million and less than 3 million population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 1. What Congestion Means to You, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Travel Time Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Index	Rank	Index	Rank
Medium Average (33 areas)	**25**		**45**		**1.08**		**1.18**	
Bridgeport-Stamford, CT-NY	40	8	58	27	1.15	4	1.30	17
Albany-Schenectady, NY	33	17	49	44	1.11	20	1.15	72
El Paso, TX-NM	32	21	45	60	1.13	6	1.16	59
Hartford, CT	31	24	52	36	1.07	57	1.17	49
New Haven, CT	31	24	44	64	1.10	29	1.15	72
Buffalo, NY	29	29	49	44	1.08	44	1.16	59
Colorado Springs, CO	29	29	48	47	1.08	44	1.16	59
Fresno, CA	29	29	40	78	1.12	10	1.15	72
Worcester, MA-CT	28	36	42	71	1.10	29	1.13	83
Akron, OH	27	42	38	84	1.06	75	1.10	97
Tulsa, OK	27	42	41	75	1.08	44	1.13	83
Charleston-North Charleston, SC	26	47	58	27	1.07	57	1.24	28
New Orleans, LA	26	47	54	31	1.11	20	1.33	13
Rochester, NY	26	47	41	75	1.09	40	1.16	59
McAllen, TX	25	55	42	71	1.12	10	1.17	49
Springfield, MA-CT	25	55	40	78	1.07	57	1.11	96
Wichita, KS	25	55	36	87	1.09	40	1.13	83
Baton Rouge, LA	24	63	61	22	1.05	85	1.22	34
Honolulu, HI	24	63	68	12	1.11	20	1.42	4
Birmingham, AL	23	68	51	40	1.05	85	1.17	49
Knoxville, TN	23	68	45	60	1.05	85	1.14	79
Albuquerque, NM	22	72	47	51	1.06	75	1.17	49
Grand Rapids, MI	22	72	41	75	1.07	57	1.12	91
Dayton, OH	21	77	32	96	1.08	44	1.12	91
Tucson, AZ	21	77	50	41	1.07	57	1.20	38
Allentown, PA-NJ	19	82	37	86	1.09	40	1.16	59
Columbia, SC	19	82	44	64	1.05	85	1.15	72
Omaha, NE-IA	19	82	44	64	1.05	85	1.18	41
Toledo, OH-MI	19	82	39	82	1.07	57	1.13	83
Cape Coral, FL	15	94	45	60	1.06	75	1.19	40
Provo-Orem, UT	15	94	27	97	1.05	85	1.12	91
Sarasota-Bradenton, FL	12	98	35	91	1.05	85	1.18	41
Bakersfield, CA	11	99	26	98	1.05	85	1.15	72

Medium Urban Areas—over 500,000 and less than 1 million population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 1. What Congestion Means to You, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Travel Time Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Index	Rank	Index	Rank
Small Average (21 areas)	**21**		**37**		**1.07**		**1.14**	
Little Rock, AR	33	17	46	57	1.10	29	1.14	79
Jackson, MS	29	29	44	64	1.07	57	1.13	83
Beaumont, TX	28	36	42	71	1.10	29	1.12	91
Corpus Christi, TX	28	36	39	82	1.11	20	1.13	83
Madison, WI	28	36	42	71	1.05	85	1.16	59
Poughkeepsie-Newburgh, NY-NJ	26	47	36	87	1.07	57	1.10	97
Greensboro, NC	25	55	36	87	1.11	20	1.13	83
Stockton, CA	25	55	34	94	1.10	29	1.17	49
Boulder, CO	23	68	48	47	1.08	44	1.22	34
Brownsville, TX	23	68	36	87	1.10	29	1.13	83
Pensacola, FL-AL	21	77	48	47	1.07	57	1.16	59
Spokane, WA	20	81	47	51	1.07	57	1.16	59
Eugene, OR	19	82	38	84	1.07	57	1.15	72
Anchorage, AK	18	87	43	69	1.07	57	1.18	41
Boise, ID	18	87	44	64	1.05	85	1.18	41
Oxnard, CA	18	87	34	94	1.05	85	1.16	59
Laredo, TX	17	92	35	91	1.07	57	1.17	49
Salem, OR	15	94	40	78	1.05	85	1.15	72
Winston-Salem, NC	15	94	26	98	1.04	101	1.10	97
Lancaster-Palmdale, CA	10	100	21	100	1.05	85	1.09	101
Indio-Cathedral City, CA	6	101	14	101	1.05	85	1.10	97
101 Area Average	**33**		**67**		**1.11**		**1.28**	
Remaining Areas Average	**11**		**23**		**1.06**		**1.11**	
All 494 Area Average	**27**		**54**		**1.09**		**1.23**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 2. Annual Extra Travel Time for Each Urban Area and Auto Commuter

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Annual Person-Hours of Travel Delay (1,000 Hours)			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Very Large Average (15 areas)	**41**		**84**		**152,347**		**312,680**	
New York-Newark, NY-NJ-CT	56	1	96	4	494,268	1	846,704	2
Boston, MA-NH-RI	50	2	86	5	122,348	6	209,231	10
Houston, TX	49	3	76	9	169,765	4	263,239	5
Los Angeles-Long Beach-Anaheim, CA	46	4	119	1	365,543	2	952,183	1
San Francisco-Oakland, CA	46	4	103	3	112,507	8	255,724	7
Washington, DC-VA-MD	42	6	105	2	101,775	10	256,476	6
Dallas-Fort Worth-Arlington, TX	40	8	65	16	136,953	5	219,759	9
Chicago, IL-IN	39	10	74	10	172,876	3	331,657	3
Atlanta, GA	37	12	78	7	109,475	9	230,899	8
Philadelphia, PA-NJ-DE-MD	37	12	63	19	100,726	11	172,804	11
Detroit, MI	35	14	60	25	92,996	12	159,551	14
Seattle, WA	31	24	77	8	69,016	13	168,998	12
Miami, FL	27	42	74	10	112,879	7	309,019	4
Phoenix-Mesa, AZ	25	55	61	22	68,645	14	168,382	13
San Diego, CA	24	63	64	17	55,433	16	145,568	15

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 2. Annual Extra Travel Time for Each Urban Area and Auto Commuter, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Annual Person-Hours of Travel Delay (1,000 Hours)			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Large Average (32 areas)	**28**		**55**		**31,065**		**61,751**	
Austin, TX	41	7	68	12	48,435	18	81,069	22
Sacramento, CA	38	11	56	30	47,492	19	71,079	28
Oklahoma City, OK	35	14	47	51	30,057	30	41,004	39
Kansas City, MO-KS	34	16	50	41	35,061	27	51,326	34
Providence, RI-MA	33	17	47	51	26,373	33	37,425	45
St. Louis, MO-IL	33	17	46	57	51,115	17	71,517	26
Minneapolis-St. Paul, MN-WI	32	21	59	26	59,835	15	110,297	18
San Antonio, TX	32	21	52	36	44,999	22	71,905	25
Portland, OR-WA	31	24	68	12	36,065	26	78,309	23
San Jose, CA	31	24	80	6	46,377	20	118,687	16
Cleveland, OH	29	29	47	51	33,300	29	53,157	32
Milwaukee, WI	29	29	47	51	24,340	39	39,610	41
San Juan, PR	29	29	57	29	38,667	25	77,006	24
Memphis, TN-MS-AR	28	36	54	31	16,285	47	31,809	46
Nashville-Davidson, TN	28	36	66	15	25,770	35	59,525	30
Baltimore, MD	27	42	63	19	44,292	23	102,994	19
Columbus, OH	27	42	49	44	26,055	34	46,578	37
Cincinnati, OH-KY-IN	26	47	52	36	28,436	31	57,734	31
Denver-Aurora, CO	26	47	62	21	46,181	21	111,366	17
Indianapolis, IN	26	47	52	36	23,362	40	47,617	36
Salt Lake City-West Valley City, UT	26	47	46	57	17,124	45	29,571	49
Pittsburgh, PA	25	55	45	60	24,743	37	44,556	38
Riverside-San Bernardino, CA	25	55	64	17	38,687	24	99,863	20
Charlotte, NC-SC	24	63	53	33	23,138	41	51,737	33
Richmond, VA	24	63	35	91	15,862	50	23,510	57
Louisville-Jefferson County, KY-IN	22	72	48	47	13,886	54	30,610	48
Orlando, FL	22	72	61	22	25,458	36	71,267	27
Virginia Beach, VA	22	72	43	69	19,220	43	38,378	44
Jacksonville, FL	21	77	53	33	16,143	48	40,733	40
Las Vegas-Henderson, NV	18	87	50	41	21,702	42	60,761	29
Tampa-St. Petersburg, FL	18	87	53	33	34,479	28	98,821	21
Raleigh, NC	17	92	40	78	11,144	60	26,220	53

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 2. Annual Extra Travel Time for Each Urban Area and Auto Commuter, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Annual Person-Hours of Travel Delay (1,000 Hours)			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Medium Average (33 areas)	**25**		**45**		**11,391**		**21,251**	
Bridgeport-Stamford, CT-NY	40	8	58	27	27,235	32	39,387	42
Albany-Schenectady, NY	33	17	49	44	10,518	64	15,617	72
El Paso, TX-NM	32	21	45	60	17,490	44	24,967	55
Hartford, CT	31	24	52	36	16,928	46	28,583	51
New Haven, CT	31	24	44	64	10,778	63	15,397	73
Buffalo, NY	29	29	49	44	16,005	49	27,343	52
Colorado Springs, CO	29	29	48	47	12,116	59	20,010	64
Fresno, CA	29	29	40	78	13,890	53	19,335	65
Worcester, MA-CT	28	36	42	71	8,922	73	13,085	77
Akron, OH	27	42	38	84	11,120	61	15,835	71
Tulsa, OK	27	42	41	75	14,440	52	21,870	60
Charleston-North Charleston, SC	26	47	58	27	10,973	62	24,780	56
New Orleans, LA	26	47	54	31	24,668	38	51,289	35
Rochester, NY	26	47	41	75	10,199	66	16,489	70
McAllen, TX	25	55	42	71	13,202	56	22,555	58
Springfield, MA-CT	25	55	40	78	9,391	70	15,218	74
Wichita, KS	25	55	36	87	7,423	78	10,790	84
Baton Rouge, LA	24	63	61	22	10,151	67	25,307	54
Honolulu, HI	24	63	68	12	13,365	55	38,532	43
Birmingham, AL	23	68	51	40	12,935	58	28,789	50
Knoxville, TN	23	68	45	60	9,058	72	17,570	66
Albuquerque, NM	22	72	47	51	10,229	65	21,780	61
Grand Rapids, MI	22	72	41	75	9,472	69	17,240	68
Dayton, OH	21	77	32	96	9,187	71	14,481	76
Tucson, AZ	21	77	50	41	13,189	57	31,552	47
Allentown, PA-NJ	19	82	37	86	7,535	77	14,953	75
Columbia, SC	19	82	44	64	7,362	80	16,893	69
Omaha, NE-IA	19	82	44	64	9,777	68	22,404	59
Toledo, OH-MI	19	82	39	82	5,328	84	11,042	82
Cape Coral, FL	15	94	45	60	7,399	79	21,377	62
Provo-Orem, UT	15	94	27	97	5,275	86	9,621	88
Sarasota-Bradenton, FL	12	98	35	91	6,122	83	17,519	67
Bakersfield, CA	11	99	26	98	4,211	91	9,684	87

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 2. Annual Extra Travel Time for Each Urban Area and Auto Commuter, Continued

Urban Area	Annual Person-Hours of Delay per 2019 Commuter				Annual Person-Hours of Travel Delay (1,000 Hours))			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Small Average (21 areas)	**21**		**37**		**5,092**		**8,855**	
Little Rock, AR	33	17	46	57	14,655	51	20,266	63
Jackson, MS	29	29	44	64	8,409	74	12,836	78
Beaumont, TX	28	36	42	71	3,154	96	4,772	101
Corpus Christi, TX	28	36	39	82	7,103	81	9,813	86
Madison, WI	28	36	42	71	7,945	75	12,064	80
Poughkeepsie-Newburgh, NY-NJ	26	47	36	87	6,204	82	8,682	89
Greensboro, NC	25	55	36	87	5,320	85	7,697	91
Stockton, CA	25	55	34	94	7,899	76	10,797	83
Boulder, CO	23	68	48	47	2,312	101	4,865	100
Brownsville, TX	23	68	36	87	3,788	92	5,944	97
Pensacola, FL-AL	21	77	48	47	4,695	89	10,537	85
Spokane, WA	20	81	47	51	5,114	87	11,913	81
Eugene, OR	19	82	38	84	3,172	95	6,504	95
Anchorage, AK	18	87	43	69	3,080	97	7,304	93
Boise, ID	18	87	44	64	5,102	88	12,525	79
Oxnard, CA	18	87	34	94	3,379	94	6,499	96
Laredo, TX	17	92	35	91	3,594	93	7,487	92
Salem, OR	15	94	40	78	2,541	99	6,772	94
Winston-Salem, NC	15	94	26	98	4,455	90	7,752	90
Lancaster-Palmdale, CA	10	100	21	100	2,456	100	5,089	99
Indio-Cathedral City, CA	6	101	14	101	2,557	98	5,832	98
101 Area Average	**33**		**67**		**37,249**		**74,787**	
Remaining Areas Average	**11**		**23**		**1,754**		**3,497**	
All 494 Area Average	**27**		**54**		**9,011**		**18,073**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 3. Extra Travel Time and Vehicle Travel, 2019 and 2020

Urban Area	Annual Person-Hours of Delay				Daily Vehicle-Miles of Travel (Freeway & Arterial)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Miles (000)	Rank	Miles (000)	Rank
Very Large Average (15 areas)	**152,347**		**312,680**		**88,426**		**110,912**	
New York-Newark NY-NJ-CT	494,268	1	846,704	2	171,866	2	231,313	2
Los Angeles-Long Beach-Anaheim, CA	365,543	2	952,183	1	194,226	1	242,783	1
Chicago, IL-IN	172,876	3	331,657	3	106,345	3	133,599	3
Houston, TX	169,765	4	263,239	5	97,490	6	113,229	6
Dallas-Fort Worth-Arlington, TX	136,953	5	219,759	9	103,211	4	120,574	4
Boston, MA-NH-RI	122,348	6	209,231	10	69,641	8	91,034	8
Miami, FL	112,879	7	309,019	4	83,188	7	103,211	7
San Francisco-Oakland, CA	112,507	8	255,724	7	42,345	19	58,731	16
Atlanta, GA	109,475	9	230,899	8	101,772	5	116,979	5
Washington, DC-VA-MD	101,775	10	256,476	6	68,369	9	89,022	9
Philadelphia, PA-NJ-DE-MD	100,726	11	172,804	11	66,797	10	86,301	10
Detroit, MI	92,996	12	159,551	14	59,133	12	79,587	11
Seattle, WA	69,016	13	168,998	12	45,760	15	58,818	15
Phoenix-Mesa, AZ	68,645	14	168,382	13	66,486	11	75,897	12
San Diego, CA	55,433	16	145,568	15	49,765	13	62,598	13

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Travel Volume—Miles traveled by all vehicles during the year.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 3. Extra Travel Time and Vehicle Travel, 2019 and 2020, Continued

Urban Area	Annual Person-Hours of Delay				Daily Vehicle-Miles of Travel (Freeway & Arterial)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Miles (000)	Rank	Miles (000)	Rank
Large Average (32 areas)	**31,065**		**61,751**		**27,698**		**33,140**	
Minneapolis-St. Paul, MN-WI	59,835	15	110,297	18	46,966	14	58,928	14
St. Louis, MO-IL	51,115	17	71,517	26	42,798	18	50,889	18
Austin, TX	48,435	18	81,069	22	26,722	31	32,351	29
Sacramento, CA	47,492	19	71,079	28	26,787	30	31,075	32
San Jose, CA	46,377	20	118,687	16	22,973	38	31,862	30
Denver-Aurora, CO	46,181	21	111,366	17	44,025	16	51,491	17
San Antonio, TX	44,999	22	71,905	25	36,744	21	44,005	21
Baltimore, MD	44,292	23	102,994	19	39,355	20	50,585	19
Riverside-San Bernardino, CA	38,687	24	99,863	20	33,515	22	41,894	22
San Juan, PR	38,667	25	77,006	24	18,725	44	20,806	45
Portland, OR-WA	36,065	26	78,309	23	24,186	34	30,119	35
Kansas City, MO-KS	35,061	27	51,326	34	32,648	23	38,409	23
Tampa-St. Petersburg, FL	34,479	28	98,821	21	43,838	17	49,873	20
Cleveland, OH	33,300	29	53,157	32	27,027	29	32,760	28
Oklahoma City, OK	30,057	30	41,004	39	18,174	45	20,284	46
Cincinnati, OH-KY-IN	28,436	31	57,734	31	28,378	26	33,191	27
Providence, RI-MA	26,373	33	37,425	45	16,081	47	20,911	44
Columbus, OH	26,055	34	46,578	37	24,730	33	30,159	34
Nashville-Davidson, TN	25,770	35	59,525	30	32,451	24	37,214	24
Orlando, FL	25,458	36	71,267	27	29,856	25	36,859	25
Pittsburgh, PA	24,743	37	44,556	38	23,145	36	28,645	36
Milwaukee, WI	24,340	39	39,610	41	23,052	37	28,600	37
Indianapolis, IN	23,362	40	47,617	36	28,169	27	33,455	26
Charlotte, NC-SC	23,138	41	51,737	33	27,333	28	31,238	31
Las Vegas-Henderson, NV	21,702	42	60,761	29	25,697	32	30,628	33
Virginia Beach, VA	19,220	43	38,378	44	23,717	35	27,707	38
Salt Lake City-West Valley City, UT	17,124	45	29,571	49	17,886	46	20,052	47
Memphis, TN-MS-AR	16,285	47	31,809	46	22,517	40	25,472	39
Jacksonville, FL	16,143	48	40,733	40	22,712	39	24,395	40
Richmond, VA	15,862	50	23,510	57	20,601	41	24,180	41
Louisville-Jefferson County, KY-IN	13,886	54	30,610	48	15,271	48	18,443	49
Raleigh, NC	11,144	60	26,220	53	20,265	42	24,011	42

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.
Travel Volume—Miles traveled by all vehicles during the year.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 3. Extra Travel Time and Vehicle Travel, 2019 and 2020, Continued

Urban Area	Annual Person-Hours of Delay				Daily Vehicle-Miles of Travel (Freeway & Arterial)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Miles (000)	Rank	Miles (000)	Rank
Medium Average (33 areas)	**11,391**		**21,251**		**10,766**		**12,786**	
Bridgeport-Stamford, CT-NY	27,235	32	39,387	42	13,011	52	16,533	51
New Orleans, LA	24,668	38	51,289	35	10,902	62	12,589	65
El Paso, TX-NM	17,490	44	24,967	55	11,577	60	14,153	57
Hartford, CT	16,928	46	28,583	51	15,142	50	19,240	48
Buffalo, NY	16,005	49	27,343	52	12,761	54	16,747	50
Tulsa, OK	14,440	52	21,870	60	14,233	51	15,555	53
Fresno, CA	13,890	53	19,335	65	8,476	79	10,055	79
Honolulu, HI	13,365	55	38,532	43	7,030	84	9,873	80
McAllen, TX	13,202	56	22,555	58	8,585	77	10,560	74
Tucson, AZ	13,189	57	31,552	47	12,259	58	13,931	60
Birmingham, AL	12,935	58	28,789	50	19,249	43	21,364	43
Colorado Springs, CO	12,116	59	20,010	64	10,284	66	11,313	71
Akron, OH	11,120	61	15,835	71	8,987	74	10,776	72
Charleston-North Charleston, SC	10,973	62	24,780	56	10,862	63	11,807	69
New Haven, CT	10,778	63	15,397	73	9,450	73	12,008	68
Albany-Schenectady, NY	10,518	64	15,617	72	9,669	71	12,011	67
Albuquerque, NM	10,229	65	21,780	61	11,840	59	14,012	59
Rochester, NY	10,199	66	16,489	70	10,126	67	13,134	63
Baton Rouge, LA	10,151	67	25,307	54	12,749	55	14,309	55
Omaha, NE-IA	9,777	68	22,404	59	11,062	61	13,458	62
Grand Rapids, MI	9,472	69	17,240	68	10,706	64	13,796	61
Springfield, MA-CT	9,391	70	15,218	74	9,497	72	12,414	66
Dayton, OH	9,187	71	14,481	76	12,328	57	14,469	54
Knoxville, TN	9,058	72	17,570	66	15,148	49	16,306	52
Worcester, MA-CT	8,922	73	13,085	77	9,927	68	12,977	64
Allentown, PA-NJ	7,535	77	14,953	75	8,680	76	10,756	73
Wichita, KS	7,423	78	10,790	84	6,338	85	7,011	88
Cape Coral, FL	7,399	79	21,377	62	9,763	70	10,431	76
Columbia, SC	7,362	80	16,893	69	12,438	56	14,023	58
Sarasota-Bradenton, FL	6,122	83	17,519	67	9,898	69	10,530	75
Toledo, OH-MI	5,328	84	11,042	82	7,540	82	9,139	82
Provo-Orem, UT	5,275	86	9,621	88	8,571	78	9,609	81
Bakersfield, CA	4,211	91	9,684	87	6,171	86	7,044	86

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Travel Volume—Miles traveled by all vehicles during the year.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 3. Extra Travel Time and Vehicle Travel, 2019 and 2020, Continued

Urban Area	Annual Person-Hours of Delay				Daily Vehicle-Miles of Travel (Freeway & Arterial)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Miles (000)	Rank	Miles (000)	Rank
Small Average (21 areas)	**5,092**		**8,855**		**5,545**		**6,446**	
Little Rock, AR	14,655	51	20,266	63	12,998	53	14,283	56
Jackson, MS	8,409	74	12,836	78	10,653	65	11,771	70
Madison, WI	7,945	75	12,064	80	6,143	87	7,621	84
Stockton, CA	7,899	76	10,797	83	5,304	92	6,277	92
Corpus Christi, TX	7,103	81	9,813	86	5,980	88	6,600	89
Poughkeepsie-Newburgh, NY-NJ	6,204	82	8,682	89	8,039	80	10,320	78
Greensboro, NC	5,320	85	7,697	91	8,951	75	10,348	77
Spokane, WA	5,114	87	11,913	81	5,607	91	7,044	86
Boise, ID	5,102	88	12,525	79	5,841	89	6,555	90
Pensacola, FL-AL	4,695	89	10,537	85	7,097	83	7,463	85
Winston-Salem, NC	4,455	90	7,752	90	7,765	81	8,977	83
Brownsville, TX	3,788	92	5,944	97	2,254	100	2,772	100
Laredo, TX	3,594	93	7,487	92	2,411	99	2,965	99
Oxnard, CA	3,379	94	6,499	96	4,103	93	4,776	93
Eugene, OR	3,172	95	6,504	95	2,772	97	3,452	97
Beaumont, TX	3,154	96	4,772	101	3,459	95	4,017	95
Anchorage, AK	3,080	97	7,304	93	2,570	98	3,031	98
Indio-Cathedral City, CA	2,557	98	5,832	98	5,608	90	6,528	91
Salem, OR	2,541	99	6,772	94	3,222	96	4,012	96
Lancaster-Palmdale, CA	2,456	100	5,089	99	4,055	94	4,721	94
Boulder, CO	2,312	101	4,865	100	1,616	101	1,832	101
101 Area Average	**37,249**		**74,787**		**26,579**		**32,490**	
Remaining Areas Average	**1,754**		**3,497**		**2,254**		**2,758**	
All 494 Area Average	**9,011**		**18,072**		**7,227**		**8,836**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Travel Volume—Miles traveled by all vehicles during the year.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 4. Excess Fuel Consumption Due to Congestion

Urban Area	Excess Fuel Consumed per 2019 Commuter				Annual Excess Fuel Consumed (000)			
	2020		2019		2020		2019	
	Gallons	Rank	Gallons	Rank	Gallons	Rank	Gallons	Rank
Very Large Average (15 areas)	**16**		**33**		**59,751**		**121,765**	
New York-Newark, NY-NJ-CT	23	1	39	3	196,072	1	335,880	2
Houston, TX	21	2	33	7	68,295	4	105,899	6
Boston, MA-NH-RI	20	3	34	6	50,540	7	86,430	9
San Francisco-Oakland, CA	17	4	40	2	40,915	9	92,997	8
Chicago, IL-IN	16	5	30	12	71,348	3	136,878	3
Dallas-Fort Worth-Arlington, TX	16	5	26	16	52,105	6	83,609	10
Washington, DC-VA-MD	16	5	41	1	38,932	11	98,110	7
Atlanta, GA	15	9	31	10	57,820	5	121,952	4
Philadelphia, PA-NJ-DE-MD	15	9	26	16	40,400	10	69,310	11
Los Angeles-Long Beach-Anaheim, CA	14	17	35	5	132,619	2	345,453	1
Detroit, MI	13	28	23	33	35,113	12	60,243	14
Miami, FL	13	28	37	4	44,167	8	120,912	5
Seattle, WA	13	28	32	8	27,569	13	67,508	12
Phoenix-Mesa, AZ	10	59	25	21	27,334	14	67,049	13
San Diego, CA	9	70	24	27	13,039	28	34,240	21

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Excess Fuel per Auto Commuter—Extra fuel consumed during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 4. Excess Fuel Consumption Due to Congestion, Continued

Urban Area	Excess Fuel Consumed per 2019 Commuter				Annual Excess Fuel Consumed (000)			
	2020		2019		2020		2019	
	Gallons	Rank	Gallons	Rank	Gallons	Rank	Gallons	Rank
Large Average (32 areas)	**11**		**23**		**12,456**		**24,641**	
Austin, TX	15	9	25	21	18,046	18	30,205	23
Cleveland, OH	15	9	24	27	17,308	20	27,628	28
Oklahoma City, OK	15	9	20	52	11,757	31	16,039	42
Sacramento, CA	15	9	23	33	15,527	24	23,239	32
San Antonio, TX	15	9	24	27	17,686	19	28,260	27
Milwaukee, WI	14	17	23	33	11,419	32	18,582	38
Portland, OR-WA	14	17	31	10	16,151	23	35,070	20
Salt Lake City-West Valley City, UT	14	17	24	27	8,638	42	14,916	45
San Juan, PR	14	17	28	15	14,672	25	29,219	25
St. Louis, MO-IL	14	17	19	62	21,143	16	29,582	24
Nashville-Davidson, TN	13	28	29	14	10,826	37	25,006	30
Providence, RI-MA	13	28	19	62	11,030	35	15,652	43
San Jose, CA	13	28	32	8	16,277	22	41,655	16
Cincinnati, OH-KY-IN	12	39	25	21	12,451	30	25,279	29
Columbus, OH	12	39	21	43	11,007	36	19,677	36
Indianapolis, IN	12	39	24	27	10,625	39	21,655	34
Minneapolis-St. Paul, MN-WI	12	39	22	39	22,154	15	40,837	17
Pittsburgh, PA	12	39	21	43	10,740	38	19,340	37
Richmond, VA	12	39	18	69	6,266	50	9,287	58
Kansas City, MO-KS	11	51	16	81	14,325	26	20,971	35
Memphis, TN-MS-AR	11	51	21	43	7,747	44	15,133	44
Baltimore, MD	10	59	23	33	16,825	21	39,125	19
Charlotte, NC-SC	10	59	21	43	8,206	43	18,348	39
Denver-Aurora, CO	10	59	25	21	18,644	17	44,960	15
Louisville-Jefferson County, KY-IN	9	70	20	52	6,125	51	13,501	49
Orlando, FL	9	70	25	21	10,208	40	28,577	26
Virginia Beach, VA	8	82	15	91	7,171	47	14,318	47
Jacksonville, FL	7	90	18	69	5,730	52	14,458	46
Las Vegas-Henderson, NV	7	90	20	52	8,784	41	24,594	31
Raleigh, NC	7	90	16	81	4,087	68	9,615	56
Riverside-San Bernardino, CA	7	90	19	62	12,899	29	33,296	22
Tampa-St. Petersburg, FL	7	90	21	43	14,128	27	40,492	18

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Excess Fuel per Auto Commuter—Extra fuel consumed during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 4. Excess Fuel Consumption Due to Congestion, Continued

Urban Area	Excess Fuel Consumed per 2019 Commuter				Annual Excess Fuel Consumed (000)			
	2020		2019		2020		2019	
	Gallons	Rank	Gallons	Rank	Gallons	Rank	Gallons	Rank
Medium Average (33 areas)	**11**		**19**		**4,779**		**8,924**	
Bridgeport-Stamford, CT-NY	16	5	23	33	11,374	33	16,449	40
Albany-Schenectady, NY	15	9	22	39	4,203	66	6,240	75
Buffalo, NY	14	17	24	27	6,968	49	11,904	52
El Paso, TX-NM	14	17	20	52	7,681	45	10,965	54
Fresno, CA	14	17	19	62	5,619	55	7,821	64
Hartford, CT	13	28	22	39	7,138	48	12,053	51
New Haven, CT	13	28	18	69	4,531	62	6,472	73
New Orleans, LA	13	28	26	16	11,121	34	23,123	33
Rochester, NY	13	28	21	43	4,401	63	7,115	68
Akron, OH	12	39	17	78	4,734	60	6,741	71
Colorado Springs, CO	12	39	20	52	4,718	61	7,792	65
Springfield, MA-CT	12	39	20	52	4,311	64	6,986	70
Worcester, MA-CT	12	39	17	78	3,802	73	5,575	79
Baton Rouge, LA	11	51	26	16	4,892	59	12,196	50
Wichita, KS	11	51	15	91	2,766	82	4,021	87
Charleston-North Charleston, SC	10	59	23	33	4,149	67	9,369	57
Honolulu, HI	10	59	30	12	5,645	54	16,276	41
Knoxville, TN	10	59	19	62	3,972	71	7,705	66
Toledo, OH-MI	10	59	21	43	1,967	89	4,075	85
Tulsa, OK	10	59	15	91	5,491	56	8,317	63
Albuquerque, NM	9	70	20	52	4,273	65	9,099	61
Birmingham, AL	9	70	20	52	5,066	58	11,276	53
Dayton, OH	9	70	14	95	4,047	69	6,379	74
Grand Rapids, MI	9	70	16	81	3,901	72	7,101	69
Allentown, PA-NJ	8	82	16	81	2,886	79	5,728	77
Columbia, SC	8	82	18	69	2,861	80	6,564	72
McAllen, TX	8	82	14	95	5,424	57	9,266	59
Omaha, NE-IA	8	82	18	69	3,988	70	9,137	60
Provo-Orem, UT	8	82	15	91	2,814	81	5,132	81
Tucson, AZ	8	82	19	62	5,725	53	13,696	48
Cape Coral, FL	6	95	17	78	3,086	77	8,916	62
Sarasota-Bradenton, FL	5	98	16	81	2,587	83	7,403	67
Bakersfield, CA	4	99	10	98	1,565	93	3,598	90

Very Large Urban Areas—over 3 million population. Medium Urban Areas—over 500,000 and less than 1 million population.
Large Urban Areas—over 1 million and less than 3 million population. Small Urban Areas—less than 500,000 population.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Excess Fuel per Auto Commuter—Extra fuel consumed during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 4. Excess Fuel Consumption Due to Congestion, Continued

Urban Area	Excess Fuel Consumed per 2019 Commuter				Annual Excess Fuel Consumed (000)			
	2020		2019		2020		2019	
	Gallons	Rank	Gallons	Rank	Gallons	Rank	Gallons	Rank
Small Average (21 areas)	**9**		**17**		**2,229**		**3,868**	
Corpus Christi, TX	14	17	20	52	3,552	74	4,907	83
Stockton, CA	14	17	19	62	2,949	78	4,031	86
Poughkeepsie-Newburgh, NY-NJ	13	28	18	69	2,580	84	3,611	89
Boulder, CO	12	39	25	21	1,086	99	2,285	99
Madison, WI	12	39	18	69	3,413	75	5,182	80
Beaumont, TX	11	51	16	81	1,321	95	1,999	100
Greensboro, NC	11	51	16	81	2,193	87	3,173	92
Little Rock, AR	11	51	16	81	7,653	46	10,582	55
Spokane, WA	11	51	26	16	2,480	85	5,777	76
Brownsville, TX	10	59	16	81	1,762	91	2,764	95
Jackson, MS	10	59	16	81	3,268	76	4,989	82
Anchorage, AK	9	70	21	43	1,158	98	2,747	96
Boise, ID	9	70	22	39	2,305	86	5,659	78
Eugene, OR	9	70	18	69	1,549	94	3,176	91
Laredo, TX	9	70	18	69	1,803	90	3,755	88
Pensacola, FL-AL	9	70	20	52	2,023	88	4,539	84
Salem, OR	8	82	21	43	1,186	97	3,162	93
Oxnard, CA	6	95	11	97	1,255	96	2,413	97
Winston-Salem, NC	6	95	10	98	1,606	92	2,794	94
Indio-Cathedral City, CA	3	100	7	100	1,055	100	2,405	98
Lancaster-Palmdale, CA	3	100	6	101	621	101	1,287	101
101 Area Average	**13**		**27**		**14,845**		**29,611**	
Remaining Areas Average	**5**		**10**		**743**		**1,477**	
All 494 Area Average	**11**		**22**		**3,626**		**7,229**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Excess Fuel per Auto Commuter—Extra fuel consumed during the year divided by the number of people who commute in private vehicles in the urban area.

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 5. Annual Congestion Cost

Urban Area	Annual Congestion Cost per 2019 Commuter (2020 $)				Annual Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Dollars	Rank	Dollars	Rank	Dollars	Rank	Dollars	Rank
Very Large Average (15 areas)	**948**		**1,880**		**3,431**		**6,784**	
New York-Newark, NY-NJ-CT	1,322	1	2,159	4	11,177	1	18,263	2
San Francisco-Oakland, CA	1,301	2	2,886	1	2,604	7	5,775	5
Los Angeles-Long Beach-Anaheim, CA	1,142	3	2,866	2	8,230	2	20,656	1
Boston, MA-NH-RI	1,103	4	1,805	5	2,732	6	4,470	10
Houston, TX	1,097	5	1,635	9	3,795	4	5,656	6
Washington, DC-VA-MD	905	7	2,191	3	2,263	11	5,480	7
Atlanta, GA	869	8	1,775	6	2,477	9	5,057	8
Chicago, IL-IN	852	9	1,587	12	3,969	3	7,391	3
Dallas-Fort Worth-Arlington, TX	848	10	1,335	18	3,051	5	4,806	9
Philadelphia, PA-NJ-DE-MD	789	12	1,292	19	2,274	10	3,723	12
Detroit, MI	710	16	1,167	30	2,082	12	3,421	14
Seattle, WA	685	22	1,612	10	1,556	13	3,664	13
San Diego, CA	665	24	1,681	8	1,219	16	3,082	15
Miami, FL	608	35	1,606	11	2,491	8	6,580	4
Phoenix-Mesa, AZ	489	65	1,179	29	1,545	14	3,728	11

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 5. Annual Congestion Cost, Continued

Urban Area	Annual Congestion Cost per 2019 Commuter (2020 $)				Annual Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Dollars	Rank	Dollars	Rank	Dollars	Rank	Dollars	Rank
Large Average (32 areas)	**586**		**1,127**		**701**		**1,345**	
Austin, TX	945	6	1,520	14	1,077	18	1,732	22
Sacramento, CA	800	11	1,164	31	1,057	20	1,539	27
St. Louis, MO-IL	719	14	986	44	1,175	17	1,610	25
San Jose, CA	712	15	1,731	7	1,066	19	2,591	16
Kansas City, MO-KS	694	17	961	47	812	27	1,124	34
San Juan, PR	694	17	1,355	17	868	25	1,696	24
Portland, OR-WA	690	19	1,424	16	836	26	1,725	23
Cleveland, OH	686	21	1,072	39	760	29	1,187	32
San Antonio, TX	682	23	1,069	40	1,010	22	1,583	26
Nashville-Davidson, TN	659	26	1,465	15	595	33	1,323	30
Oklahoma City, OK	656	27	857	59	685	30	894	39
Columbus, OH	645	29	1,126	34	589	34	1,027	37
Providence, RI-MA	630	30	856	60	584	35	794	45
Minneapolis-St. Paul, MN-WI	620	33	1,119	36	1,322	15	2,384	18
Cincinnati, OH-KY-IN	608	35	1,192	28	637	31	1,248	31
Milwaukee, WI	602	39	931	54	557	39	861	42
Charlotte, NC-SC	585	41	1,271	21	516	41	1,120	35
Pittsburgh, PA	552	47	952	48	561	38	966	38
Baltimore, MD	549	49	1,219	27	993	23	2,203	19
Denver-Aurora, CO	545	50	1,263	24	1,034	21	2,394	17
Salt Lake City-West Valley City, UT	544	52	903	56	392	45	651	49
Riverside-San Bernardino, CA	511	60	1,272	20	872	24	2,171	20
Indianapolis, IN	487	66	941	49	540	40	1,043	36
Richmond, VA	482	67	693	90	353	51	508	57
Orlando, FL	471	69	1,261	25	570	37	1,526	28
Jacksonville, FL	448	72	1,089	38	355	50	863	41
Memphis, TN-MS-AR	427	76	806	73	387	46	730	46
Tampa-St. Petersburg, FL	401	79	1,125	35	767	28	2,154	21
Virginia Beach, VA	399	80	763	82	423	43	809	44
Louisville-Jefferson County, KY-IN	386	82	835	65	319	54	691	48
Las Vegas-Henderson, NV	363	88	997	43	487	42	1,337	29
Raleigh, NC	361	89	832	66	246	61	568	54

Large Urban Areas—over 1 million and less than 3 million population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 5. Annual Congestion Cost, Continued

Urban Area	Annual Congestion Cost per 2019 Commuter (2020 $)				Annual Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Dollars	Rank	Dollars	Rank	Dollars	Rank	Dollars	Rank
Medium Average (33 areas)	**502**		**905**		**258**		**467**	
Bridgeport-Stamford, CT-NY	782	13	1,103	37	633	32	892	40
El Paso, TX-NM	688	20	965	46	394	44	554	55
Buffalo, NY	649	28	1,056	41	362	49	589	53
Fresno, CA	626	31	832	66	320	53	426	65
Hartford, CT	606	37	976	45	385	47	620	51
Worcester, MA-CT	603	38	849	61	201	73	283	77
New Orleans, LA	597	40	1,225	26	571	36	1,171	33
New Haven, CT	583	42	814	72	243	62	339	72
Colorado Springs CO	582	43	936	53	268	59	431	64
Honolulu, HI	562	45	1,552	13	308	55	850	43
Albany-Schenectady, NY	555	46	781	75	241	64	338	73
Akron, OH	552	47	750	85	253	60	344	71
Rochester, NY	545	50	843	62	230	67	356	70
Birmingham, AL	521	55	1,139	32	291	58	636	50
Charleston-North Charleston, SC	521	55	1,131	33	242	63	525	56
Albuquerque, NM	516	57	1,053	42	231	66	471	61
Baton Rouge, LA	512	59	1,270	22	238	65	591	52
McAllen, TX	506	61	829	68	294	57	482	58
Knoxville, TN	493	63	941	49	209	72	399	66
Springfield, MA-CT	492	64	757	84	214	69	330	74
Tulsa, OK	479	68	692	91	325	52	469	62
Dayton, OH	435	74	666	93	210	71	322	75
Grand Rapids, MI	435	74	771	80	213	70	377	68
Toledo, OH-MI	393	81	779	76	120	85	238	83
Tucson, AZ	381	83	869	58	306	56	697	47
Omaha, NE-IA	377	84	838	64	216	68	479	60
Wichita, KS	377	84	526	98	164	78	230	84
Columbia, SC	370	87	817	71	162	80	359	69
Allentown, PA-NJ	360	90	686	92	169	77	321	76
Cape Coral, FL	337	94	938	51	163	79	455	63
Provo-Orem, UT	309	95	538	97	130	84	227	85
Bakersfield, CA	268	98	589	96	97	91	213	88
Sarasota-Bradenton, FL	247	99	695	89	136	83	384	67

Medium Urban Areas—over 500,000 and less than 1 million population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 5. Annual Congestion Cost, Continued

Urban Area	Annual Congestion Cost per 2019 Commuter (2020 $)				Annual Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Dollars	Rank	Dollars	Rank	Dollars	Rank	Dollars	Rank
Small Average (21 areas)	**420**		**703**		**117**		**195**	
Little Rock, AR	665	24	874	57	365	48	480	59
Stockton, CA	624	32	840	63	185	75	250	82
Corpus Christi, TX	616	34	819	70	161	81	215	87
Anchorage, AK	563	44	1,265	23	69	97	155	93
Beaumont, TX	535	53	779	76	70	96	103	101
Jackson, MS	533	54	773	79	189	74	274	79
Madison, WI	514	58	743	86	183	76	264	80
Brownsville, TX	504	62	762	83	84	92	128	98
Poughkeepsie-Newburgh, NY-NJ	468	70	629	95	139	82	187	89
Greensboro, NC	463	71	642	94	119	86	166	91
Boulder, CO	436	73	905	55	51	101	106	100
Spokane, WA	423	77	937	52	119	86	263	81
Oxnard, CA	416	78	765	81	78	94	143	96
Eugene, OR	371	86	728	87	74	95	145	95
Pensacola, FL-AL	358	91	784	74	104	89	227	85
Laredo, TX	349	92	697	88	84	92	168	90
Boise, ID	341	93	822	69	114	88	275	78
Salem, OR	303	96	503	99	99	90	164	92
Winston-Salem, NC	302	97	775	78	58	99	148	94
Indio-Cathedral City, CA	221	100	485	100	60	98	131	97
Lancaster-Palmdale, CA	216	101	439	101	55	100	111	99
101 Area Average	**742**		**1,441**		**841**		**1,627**	
Remaining Areas Average	**260**		**497**		**40**		**77**	
All 494 Area Average	**605**		**1,174**		**204**		**384**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.
Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.
Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 6. Excess Truck Travel Time and Congestion Cost

Urban Area	Annual Person-Hours of Truck Delay				Annual Truck Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Dollars	Rank	Dollars	Rank
Very Large Average (15 areas)	**6,943**		**13,213**		**372**		**685**	
New York-Newark, NY-NJ-CT	24,288	1	36,628	2	1,298	1	1,800	2
Los Angeles-Long Beach-Anaheim, CA	13,895	2	36,779	1	762	2	1,862	1
Chicago, IL-IN	10,634	3	16,360	3	565	3	969	3
Houston, TX	7,950	4	12,015	5	420	4	586	5
San Francisco-Oakland, CA	6,724	5	13,453	4	366	5	814	4
Dallas-Fort Worth-Arlington, TX	6,250	6	9,846	8	330	6	580	6
Boston, MA-NH-RI	4,894	7	7,478	11	262	7	368	11
Atlanta, GA	4,859	8	10,674	7	257	8	521	8
Philadelphia, PA-NJ-DE-MD	4,751	9	6,995	12	253	9	345	12
Detroit, MI	4,371	10	6,457	14	236	10	322	14
Miami, FL	3,956	11	11,577	6	209	11	563	7
Washington, DC-VA-MD	3,839	12	9,809	9	205	12	480	9
Phoenix-Mesa, AZ	3,010	14	7,765	10	161	14	462	10
Seattle, WA	2,773	15	6,966	13	148	15	342	13
San Diego, CA	1,954	24	5,394	16	105	24	266	16

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay per Auto Commuter—Extra travel time during the year.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 6. Excess Truck Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Truck Delay				Annual Truck Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Dollars	Rank	Dollars	Rank
Large Average (32 areas)	**1,534**		**2,756**		**82**		**147**	
St. Louis, MO-IL	3,434	13	4,358	19	181	13	256	17
San Jose, CA	2,581	17	5,443	15	142	16	276	15
Kansas City, MO-KS	2,582	16	3,187	28	136	17	155	29
San Antonio, TX	2,270	18	3,471	27	120	18	204	24
Minneapolis-St. Paul, MN-WI	2,244	19	3,975	23	119	19	236	18
Portland, OR-WA	2,137	21	4,039	22	115	20	200	26
Austin, TX	2,154	20	3,545	25	114	21	173	27
Denver-Aurora, CO	2,066	23	4,637	17	112	22	233	19
Baltimore, MD	2,078	22	4,231	21	110	23	207	23
Oklahoma City, OK	1,868	26	2,434	33	98	26	118	40
Nashville-Davidson, TN	1,789	28	4,350	20	95	28	212	22
Cleveland, OH	1,702	30	2,274	37	93	29	138	33
Riverside-San Bernardino, CA	1,644	31	4,488	18	90	31	227	21
Sacramento, CA	1,603	32	2,122	39	88	32	129	35
Indianapolis, IN	1,548	33	2,488	31	83	33	124	36
Memphis, TN-MS-AR	1,427	34	2,183	38	76	34	130	34
Milwaukee, WI	1,403	35	1,857	45	74	35	91	46
Tampa-St. Petersburg, FL	1,370	36	3,909	24	73	36	232	20
Columbus, OH	1,331	37	1,979	42	71	37	117	41
San Juan, PR	1,239	38	2,680	30	68	38	164	28
Cincinnati, OH-KY-IN	1,226	39	2,343	35	65	39	115	42
Orlando, FL	1,164	41	2,939	29	62	40	145	30
Pittsburgh, PA	1,166	40	1,880	43	62	40	92	44
Charlotte, NC-SC	1,064	42	2,041	41	56	42	121	37
Las Vegas-Henderson, NV	1,003	43	2,343	35	53	43	139	32
Louisville-Jefferson County, KY-IN	888	44	1,807	46	47	44	106	43
Providence, RI-MA	885	46	1,147	54	47	44	56	56
Salt Lake City-West Valley City, UT	875	47	1,470	50	47	44	72	51
Virginia Beach, VA	695	54	1,215	53	37	54	60	54
Richmond, VA	667	56	840	64	35	55	50	59
Jacksonville, FL	567	62	1,501	48	30	62	73	49
Raleigh, NC	432	73	1,027	57	23	73	60	54

Large Urban Areas—over 1 million and less than 3 million population.

Yearly Delay per Auto Commuter—Extra travel time during the year.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 6. Excess Truck Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Truck Delay				Annual Truck Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Dollars	Rank	Dollars	Rank
Medium Average (33 areas)	**602**		**1,029**		**32**		**56**	
Bridgeport-Stamford, CT-NY	1,881	25	2,365	34	100	25	140	31
New Orleans, LA	1,729	29	3,499	26	91	30	204	24
El Paso, TX-NM	888	44	1,233	52	47	44	73	49
Hartford, CT	870	48	1,307	51	46	48	64	53
Tucson, AZ	840	49	1,867	44	45	49	92	44
Baton Rouge, LA	805	50	2,049	40	43	50	121	37
Tulsa, OK	774	51	1,021	58	41	51	50	59
Buffalo, NY	720	52	1,019	59	39	52	51	58
Fresno, CA	712	53	875	63	38	53	43	65
Birmingham, AL	672	55	1,473	49	35	55	86	48
Honolulu, HI	623	58	1,686	47	35	55	87	47
Akron, OH	625	57	716	69	33	58	35	74
Knoxville, TN	615	59	1,124	55	33	58	67	52
Albany-Schenectady, NY	608	60	732	65	32	60	36	71
Provo-Orem, UT	589	61	1,047	56	32	60	52	57
McAllen, TX	565	63	903	61	30	62	45	62
Dayton, OH	545	65	662	71	29	65	39	67
Springfield, MA-CT	498	67	658	73	27	67	32	76
Albuquerque, NM	489	68	979	60	26	68	49	61
New Haven, CT	479	69	634	76	26	68	38	70
Colorado Springs, CO	451	71	652	75	24	70	39	67
Grand Rapids, MI	453	70	661	72	24	70	39	67
Rochester, NY	447	72	658	73	24	70	32	76
Charleston-North Charleston, SC	399	76	891	62	21	75	44	63
Worcester, MA-CT	404	75	570	80	21	75	28	81
Allentown, PA-NJ	314	79	601	79	17	78	31	78
Omaha, NE-IA	325	78	612	78	17	78	36	71
Wichita, KS	303	80	426	88	16	80	21	88
Columbia, SC	272	83	629	77	15	81	31	78
Toledo, OH-MI	272	83	490	85	14	84	24	86
Cape Coral, FL	243	87	725	67	13	85	36	71
Sarasota-Bradenton, FL	243	87	726	66	13	85	43	65
Bakersfield, CA	219	89	459	87	12	89	24	86

Medium Urban Areas—over 500,000 and less than 1 million population.

Yearly Delay—Extra travel time during the year.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 6. Excess Truck Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Truck Delay				Annual Truck Congestion Cost (2020 $millions)			
	2020		2019		2020		2019	
	Hours (000)	Rank	Hours (000)	Rank	Dollars	Rank	Dollars	Rank
Small Average (21 areas)	**307**		**474**		**18**		**26**	
Little Rock, AR	1,834	27	2,471	32	97	27	120	39
Stockton, CA	553	64	720	68	30	62	44	63
Madison, WI	519	66	690	70	28	66	34	75
Jackson, MS	426	74	529	83	23	73	26	84
Corpus Christi, TX	372	77	513	84	20	77	25	85
Laredo, TX	275	81	567	81	15	81	28	81
Spokane, WA	273	82	548	82	15	81	27	83
Greensboro, NC	250	85	339	91	13	85	17	91
Poughkeepsie-Newburgh, NY-NJ	249	86	338	92	13	85	17	91
Oxnard, CA	195	90	342	90	11	90	17	91
Boise, ID	191	93	486	86	10	91	29	80
Eugene, OR	193	92	385	89	10	91	19	89
Winston-Salem, NC	195	90	290	95	10	91	14	96
Brownsville, TX	150	95	231	97	8	94	11	98
Indio-Cathedral City, CA	151	94	249	96	8	94	15	94
Pensacola, FL-AL	146	96	322	93	8	94	19	89
Anchorage, AK	128	98	227	98	7	97	11	98
Beaumont, TX	140	97	210	100	7	97	10	100
Lancaster-Palmdale, CA	110	100	220	99	6	99	13	97
Salem, OR	111	99	304	94	6	99	15	94
Boulder, CO	72	101	163	101	4	101	10	100
101 Area Average	**1,778**		**3,270**		**95**		**172**	
Remaining Areas Average	**95**		**175**		**5**		**9**	
All 494 Area Average	**426**		**784**		**23**		**41**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Yearly Delay—Extra travel time during the year.

Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 7. Travel Time Index and Commuter Stress Index

Urban Area	Travel Time Index				Commuter Stress Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Very Large Average (15 areas)	**1.13**		**1.35**		**1.15**		**1.44**	
New York-Newark, NY-NJ-CT	1.17	1	1.36	6	1.21	1	1.39	14
Los Angeles-Long Beach-Anaheim, CA	1.16	2	1.52	1	1.21	1	1.76	1
San Francisco-Oakland, CA	1.16	2	1.51	2	1.18	3	1.65	2
Houston, TX	1.15	4	1.34	10	1.16	6	1.44	10
Boston, MA-NH-RI	1.12	10	1.28	21	1.13	14	1.31	26
Dallas-Fort Worth-Arlington, TX	1.12	10	1.25	25	1.14	10	1.33	21
Detroit, MI	1.12	10	1.23	31	1.13	14	1.28	31
Philadelphia, PA-NJ-DE-MD	1.12	10	1.24	28	1.13	14	1.27	35
Washington, DC-VA-MD	1.12	10	1.36	6	1.14	10	1.44	10
Miami, FL	1.11	20	1.34	10	1.12	24	1.46	6
Seattle, WA	1.11	20	1.37	5	1.12	24	1.43	12
Atlanta, GA	1.10	29	1.30	17	1.11	31	1.40	13
Chicago, IL-IN	1.10	29	1.29	19	1.11	31	1.32	23
San Diego, CA	1.10	29	1.34	10	1.11	31	1.39	14
Phoenix-Mesa, AZ	1.08	44	1.29	19	1.09	44	1.34	19

Very Large Urban Areas—over 3 million population. Medium Urban Areas—over 500,000 and less than 1 million population.
Large Urban Areas—over 1 million and less than 3 million population. Small Urban Areas—less than 500,000 population.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Commuter Stress Index—The travel time index calculated for only the most congested direction in each peak period (modeling an individual commuter's experience).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 7. Travel Time Index and Commuter Stress Index, Continued

Urban Area	Travel Time Index				Commuter Stress Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Large Average (32 areas)	**1.09**		**1.24**		**1.10**		**1.29**	
Austin, TX	1.13	6	1.35	8	1.14	10	1.51	5
Providence, RI-MA	1.13	6	1.16	59	1.15	8	1.18	60
San Juan, PR	1.13	6	1.32	15	1.17	5	1.45	7
Oklahoma City, OK	1.12	10	1.20	38	1.13	14	1.21	44
San Antonio, TX	1.12	10	1.23	31	1.13	14	1.31	26
San Jose, CA	1.12	10	1.44	3	1.12	24	1.55	3
Minneapolis-St. Paul, MN-WI	1.11	20	1.26	23	1.12	24	1.28	31
Sacramento, CA	1.11	20	1.27	22	1.13	14	1.34	19
Kansas City, MO-KS	1.10	29	1.16	59	1.11	31	1.17	67
Portland, OR-WA	1.10	29	1.35	8	1.11	31	1.45	7
Denver-Aurora, CO	1.09	40	1.32	15	1.10	40	1.37	16
Cleveland, OH	1.08	44	1.14	79	1.09	44	1.17	67
Columbus, OH	1.08	44	1.18	41	1.09	44	1.21	44
Memphis, TN-MS-AR	1.08	44	1.18	41	1.08	58	1.19	54
Pittsburgh, PA	1.08	44	1.18	41	1.09	44	1.19	54
Riverside-San Bernardino, CA	1.08	44	1.33	13	1.09	44	1.45	7
St. Louis, MO-IL	1.08	44	1.14	79	1.08	58	1.17	67
Tampa-St. Petersburg, FL	1.08	44	1.25	25	1.09	44	1.32	23
Baltimore, MD	1.07	57	1.26	23	1.09	44	1.32	23
Las Vegas-Henderson, NV	1.07	57	1.25	25	1.07	75	1.26	37
Milwaukee, WI	1.07	57	1.16	59	1.07	75	1.17	67
Orlando, FL	1.07	57	1.24	28	1.08	58	1.30	29
Richmond, VA	1.07	57	1.12	91	1.08	58	1.13	93
Charlotte, NC-SC	1.06	75	1.22	34	1.07	75	1.26	37
Cincinnati, OH-KY-IN	1.06	75	1.17	49	1.07	75	1.18	60
Indianapolis, IN	1.06	75	1.18	41	1.07	75	1.20	49
Jacksonville, FL	1.06	75	1.21	37	1.09	44	1.28	31
Nashville-Davidson, TN	1.06	75	1.23	31	1.07	75	1.35	18
Salt Lake City-West Valley City, UT	1.06	75	1.17	49	1.07	75	1.19	54
Virginia Beach, VA	1.06	75	1.16	59	1.07	75	1.18	60
Louisville-Jefferson County, KY-IN	1.05	85	1.17	49	1.06	91	1.19	54
Raleigh, NC	1.05	85	1.17	49	1.05	99	1.19	54

Large Urban Areas—over 1 million and less than 3 million population.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Commuter Stress Index—The travel time index calculated for only the most congested direction in each peak period (modeling an individual commuter's experience).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 7. Travel Time Index and Commuter Stress Index, Continued

Urban Area	Travel Time Index				Commuter Stress Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Medium Average (33 areas)	**1.08**		**1.18**		**1.09**		**1.21**	
Bridgeport-Stamford, CT-NY	1.15	4	1.30	17	1.18	3	1.33	21
El Paso, TX-NM	1.13	6	1.16	59	1.16	6	1.20	49
Fresno, CA	1.12	10	1.15	72	1.14	10	1.18	60
McAllen, TX	1.12	10	1.17	49	1.13	14	1.20	49
Albany-Schenectady, NY	1.11	20	1.15	72	1.11	31	1.17	67
Honolulu, HI	1.11	20	1.42	4	1.13	14	1.52	4
New Orleans, LA	1.11	20	1.33	13	1.11	31	1.36	17
New Haven, CT	1.10	29	1.15	72	1.12	24	1.16	79
Worcester, MA-CT	1.10	29	1.13	83	1.11	31	1.14	86
Allentown, PA-NJ	1.09	40	1.16	59	1.09	44	1.21	44
Rochester, NY	1.09	40	1.16	59	1.10	40	1.17	67
Wichita, KS	1.09	40	1.13	83	1.09	44	1.14	86
Buffalo, NY	1.08	44	1.16	59	1.09	44	1.17	67
Colorado Springs, CO	1.08	44	1.16	59	1.08	58	1.17	67
Dayton, OH	1.08	44	1.12	91	1.08	58	1.13	93
Tulsa, OK	1.08	44	1.13	83	1.08	58	1.14	86
Charleston-North Charleston, SC	1.07	57	1.24	28	1.08	58	1.31	26
Grand Rapids, MI	1.07	57	1.12	91	1.08	58	1.13	93
Hartford, CT	1.07	57	1.17	49	1.09	44	1.18	60
Springfield, MA-CT	1.07	57	1.11	96	1.08	58	1.13	93
Toledo, OH-MI	1.07	57	1.13	83	1.08	58	1.14	86
Tucson, AZ	1.07	57	1.20	38	1.07	75	1.21	44
Akron, OH	1.06	75	1.10	97	1.09	44	1.15	81
Albuquerque, NM	1.06	75	1.17	49	1.07	75	1.22	41
Cape Coral, FL	1.06	75	1.19	40	1.09	44	1.21	44
Bakersfield, CA	1.05	85	1.15	72	1.06	91	1.17	67
Baton Rouge, LA	1.05	85	1.22	34	1.06	91	1.27	35
Birmingham, AL	1.05	85	1.17	49	1.06	91	1.22	41
Columbia, SC	1.05	85	1.15	72	1.06	91	1.17	67
Knoxville, TN	1.05	85	1.14	79	1.06	91	1.15	81
Omaha, NE-IA	1.05	85	1.18	41	1.07	75	1.20	49
Provo-Orem, UT	1.05	85	1.12	91	1.06	91	1.13	93
Sarasota-Bradenton, FL	1.05	85	1.18	41	1.07	75	1.25	39

Medium Urban Areas—over 500,000 and less than 1 million population.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Commuter Stress Index—The travel time index calculated for only the most congested direction in each peak period (modeling an individual commuter's experience).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 7. Travel Time Index and Commuter Stress Index, Continued

Urban Area	Travel Time Index				Commuter Stress Index			
	2020		2019		2020		2019	
	Hours	Rank	Hours	Rank	Hours	Rank	Hours	Rank
Small Average (21 areas)	**1.07**		**1.14**		**1.09**		**1.16**	
Corpus Christi, TX	1.11	20	1.13	83	1.15	8	1.16	79
Greensboro, NC	1.11	20	1.13	83	1.12	24	1.14	86
Beaumont, TX	1.10	29	1.12	91	1.12	24	1.14	86
Brownsville, TX	1.10	29	1.13	83	1.13	14	1.15	81
Little Rock, AR	1.10	29	1.14	79	1.11	31	1.15	81
Stockton, CA	1.10	29	1.17	49	1.13	14	1.17	67
Boulder, CO	1.08	44	1.22	34	1.10	40	1.28	31
Anchorage, AK	1.07	57	1.18	41	1.08	58	1.24	40
Eugene, OR	1.07	57	1.15	72	1.08	58	1.20	49
Jackson, MS	1.07	57	1.13	83	1.08	58	1.14	86
Laredo, TX	1.07	57	1.17	49	1.08	58	1.30	29
Pensacola, FL-AL	1.07	57	1.16	59	1.10	40	1.18	60
Poughkeepsie-Newburgh, NY-NJ	1.07	57	1.10	97	1.08	58	1.11	98
Spokane, WA	1.07	57	1.16	59	1.08	58	1.17	67
Boise, ID	1.05	85	1.18	41	1.07	75	1.22	41
Indio-Cathedral City, CA	1.05	85	1.10	97	1.07	75	1.10	100
Lancaster-Palmdale, CA	1.05	85	1.09	101	1.06	91	1.10	100
Madison, WI	1.05	85	1.16	59	1.05	99	1.18	60
Oxnard, CA	1.05	85	1.16	59	1.07	75	1.19	54
Salem, OR	1.05	85	1.15	72	1.07	75	1.15	81
Winston-Salem, NC	1.04	101	1.10	97	1.04	101	1.11	98
101 Area Average	**1.11**		**1.28**		**1.12**		**1.34**	
Remaining Areas Average	**1.06**		**1.11**		**1.07**		**1.14**	
All 494 Area Average	**1.09**		**1.23**		**1.11**		**1.29**	

Very Large Urban Areas—over 3 million population.
Large Urban Areas—over 1 million and less than 3 million population.
Medium Urban Areas—over 500,000 and less than 1 million population.
Small Urban Areas—less than 500,000 population.

Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions. A value of 1.30 indicates a 20-minute free-flow trip takes 26 minutes in the peak period.

Commuter Stress Index—The travel time index calculated for only the most congested direction in each peak period (modeling an individual commuter's experience).

Note: Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons are made between similar urban areas.

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Aberdeen-Bel Air S-Bel Air N, MD	13	23	310	506
Abilene, TX	14	20	320	459
Aguadilla-Isabela-San Sebastian, PR	9	16	270	430
Albany, GA	7	18	171	414
Albany, OR	5	9	110	215
Alexandria, LA	14	27	324	609
Alton, IL-MO	-	-	-	-
Altoona, PA	13	17	292	377
Amarillo, TX	10	20	226	444
Ames, IA	3	8	58	171
Anderson, IN	5	16	104	349
Anderson, SC	11	22	254	485
Ann Arbor, MI	10	21	228	460
Anniston-Oxford, AL	12	21	253	438
Antioch, CA	11	33	241	693
Appleton, WI	6	16	149	352
Arecibo, PR	15	25	399	669
Arroyo Grande-Grover Beach, CA	13	21	329	494
Asheville, NC	19	28	413	612
Athens-Clarke County, GA	12	26	256	547
Atlantic City, NJ	16	21	356	445
Auburn, AL	15	30	325	640
Augusta-Richmond County, GA-SC	16	26	349	566
Avondale-Goodyear, AZ	14	23	320	529
Bangor, ME	14	28	313	604
Barnstable Town, MA	15	20	348	444
Battle Creek, MI	6	15	144	351
Bay City, MI	6	17	140	361
Beckley, WV	9	12	214	282
Bellingham, WA	15	28	341	612
Beloit, WI-IL	4	11	95	240
Bend, OR	9	24	212	549
Benton Harbor-St. Joseph-Fair Plain, MI	6	14	144	310
Billings, MT	9	21	198	453
Binghamton, NY-PA	14	20	320	462
Bismarck, ND	10	19	213	389
Blacksburg, VA	7	15	152	294
Bloomington, IN	6	16	140	358
Bloomington-Normal, IL	4	11	99	238
Bloomsburg-Berwick, PA	7	10	175	236
Bonita Springs, FL	11	32	250	705
Bowling Green, KY	13	32	305	712
Bremerton, WA	12	25	263	545
Bristol, TN-VA	18	23	412	520
Brunswick, GA	9	21	206	460
Burlington, NC	8	16	183	335
Burlington, VT	19	25	421	554
Camarillo, CA	17	37	389	806
Canton, OH	11	22	238	475
Cape Girardeau, MO-IL	9	18	191	377

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Carbondale, IL	6	11	123	225
Carson City, NV	5	13	118	282
Cartersville, GA	9	22	197	486
Casa Grande, AZ	4	10	84	231
Casper, WY	7	15	163	319
Cedar Rapids, IA	11	19	259	412
Chambersburg, PA	5	8	133	195
Champaign, IL	8	12	174	258
Charleston, WV	12	17	273	393
Charlottesville, VA	19	38	409	798
Chattanooga, TN-GA	15	32	350	745
Cheyenne, WY	6	14	135	322
Chico, CA	7	17	150	366
Clarksville, TN-KY	8	22	191	502
Cleveland, TN	11	24	267	554
Coeur d'Alene, ID	10	23	222	477
College Station-Bryan, TX	15	32	334	686
Columbia, MO	14	20	335	452
Columbus, GA-AL	10	20	228	422
Columbus, IN	7	10	155	211
Concord, CA	17	49	385	1,057
Concord, NC	11	23	241	511
Conroe-The Woodlands, TX	21	34	478	749
Conway, AR	12	26	261	539
Corvallis, OR	4	11	94	245
Cumberland, MD-WV-PA	14	23	311	493
Dalton, GA	7	20	160	441
Danbury, CT-NY	15	20	328	427
Danville, IL	3	9	80	203
Daphne-Fairhope, AL	16	26	344	525
Davenport, IA-IL	9	14	193	285
Davis, CA	26	40	591	891
DeKalb, IL	4	9	79	188
Decatur, AL	11	24	247	512
Decatur, IL	4	11	91	243
Delano, CA	5	15	125	333
Deltona, FL	7	16	151	347
Denton-Lewisville, TX	21	32	476	700
Des Moines, IA	7	17	153	374
Dothan, AL	11	33	250	736
Dover, DE	10	22	232	489
Dover-Rochester, NH-ME	15	20	339	440
Dubuque, IA-IL	5	14	126	312
Duluth, MN-WI	8	16	177	363
Durham, NC	18	35	401	732
East Stroudsburg, PA-NJ	7	9	157	198
Eau Claire, WI	6	14	134	306
El Centro-Calexico, CA	6	14	133	327
El Paso de Robles-Atascadero, CA	13	35	321	795
Elizabethtown-Radcliff, KY	7	16	159	338

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Elkhart, IN-MI	7	14	180	339
Elmira, NY	7	13	163	277
Erie, PA	8	17	168	369
Evansville, IN-KY	7	18	159	392
Fairbanks, AK	14	34	319	775
Fairfield, CA	16	43	369	921
Fajardo, PR	5	8	128	192
Fargo, ND-MN	8	21	166	438
Farmington, NM	5	14	119	304
Fayetteville, NC	9	23	198	476
Fayetteville-Springdale-Rogers, AR-MO	14	32	301	693
Flagstaff, AZ	8	17	191	390
Flint, MI	7	15	144	323
Florence, AL	13	29	289	605
Florence, SC	19	31	426	677
Florida-Imbrey-Barceloneta, PR	4	10	115	237
Fond du Lac, WI	4	10	90	211
Fort Collins, CO	12	23	256	483
Fort Smith, AR-OK	9	23	206	504
Fort Walton Beach-Navarre-Wright, FL	10	24	226	517
Fort Wayne, IN	8	19	186	416
Frederick, MD	16	27	367	596
Fredericksburg, VA	17	31	375	675
Gadsden, AL	12	30	259	647
Gainesville, FL	11	28	240	593
Gainesville, GA	11	25	250	556
Gastonia, NC-SC	11	25	243	530
Gilroy-Morgan Hill, CA	14	35	317	757
Glens Falls, NY	13	22	291	471
Goldsboro, NC	8	19	185	410
Grand Forks, ND-MN	8	23	184	488
Grand Island, NE	4	9	79	183
Grand Junction, CO	5	12	101	251
Grants Pass, OR	6	13	143	298
Great Falls, MT	5	13	113	286
Greeley, CO	11	26	250	573
Green Bay, WI	8	16	182	351
Greenville, NC	12	31	275	668
Greenville, SC	16	30	363	664
Guayama, PR	4	11	102	233
Gulfport, MS	14	24	302	497
Hagerstown, MD-WV-PA	12	16	277	368
Hammond, LA	8	17	174	348
Hanford, CA	4	10	98	209
Hanover, PA	7	13	163	289
Harlingen, TX	7	15	155	339
Harrisburg, PA	20	35	471	778
Harrisonburg, VA	10	24	210	511
Hattiesburg, MS	13	27	282	573
Hazleton, PA	11	19	254	427

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Hemet, CA	5	10	114	229
Hickory, NC	8	19	176	400
High Point, NC	6	15	144	334
Hilton Head Island, SC	14	21	329	490
Hinesville, GA	4	11	98	230
Holland, MI	9	12	202	251
Homosassa Spr-Beverly Hills-Citrus Spr,FL	11	16	258	337
Hot Springs, AR	12	23	260	473
Houma, LA	7	17	164	394
Huntington, WV-KY-OH	9	19	201	415
Huntsville, AL	14	28	298	580
Idaho Falls, ID	5	11	120	234
Iowa City, IA	6	16	138	341
Ithaca, NY	17	28	382	614
Jackson, MI	7	17	167	369
Jackson, TN	9	24	227	572
Jacksonville, NC	9	20	208	422
Janesville, WI	10	19	234	439
Jefferson City, MO	10	22	222	468
Johnson City, TN	10	18	240	388
Johnstown, PA	5	12	115	266
Jonesboro, AR	18	26	390	541
Joplin, MO	8	21	178	470
Juana Díaz, PR	3	8	36	82
Kahului, HI	8	23	200	547
Kailua (Honolulu County)-Kaneohe, HI	8	24	208	559
Kalamazoo, MI	9	17	205	375
Kankakee, IL	5	13	109	293
Kennewick-Pasco, WA	6	17	138	371
Kenosha, WI-IL	13	23	324	552
Killeen, TX	10	14	236	319
Kingsport, TN-VA	7	18	164	400
Kingston, NY	17	23	376	486
Kissimmee, FL	11	35	259	769
Kokomo, IN	3	9	77	193
La Crosse, WI-MN	9	16	123	229
Lady Lake-The Villages, FL	8	14	165	287
Lafayette, IN	7	18	149	392
Lafayette, LA	13	29	308	670
Lafayette-Louisville-Erie, CO	8	18	179	368
Lake Charles, LA	15	38	376	880
Lake Havasu City, AZ	2	6	54	136
Lake Jackson-Angleton, TX	15	22	339	482
Lakeland, FL	9	18	218	419
Lancaster, PA	14	19	309	410
Lansing, MI	9	15	208	334
Las Cruces, NM	8	19	187	427
Lawrence, KS	6	14	135	314
Lawton, OK	3	7	66	153
Lebanon, PA	4	9	97	199

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Leesburg-Eustis-Tavares, FL	9	18	215	404
Leominster-Fitchburg, MA	14	20	324	436
Lewiston, ID-WA	4	11	96	248
Lewiston, ME	10	22	240	500
Lexington Park-Cal-Ches Ranch Estates, MD	18	27	385	569
Lexington-Fayette, KY	13	36	308	789
Lima, OH	5	12	128	280
Lincoln, NE	7	17	153	380
Livermore, CA	18	47	410	1,034
Lodi, CA	23	38	566	880
Logan, UT	3	8	72	197
Lompoc, CA	3	8	67	175
Longmont, CO	14	27	319	587
Longview, TX	20	34	459	739
Longview, WA-OR	12	23	279	506
Lorain-Elyria, OH	7	16	158	354
Los Lunas, NM	4	9	81	205
Lubbock, TX	13	19	298	414
Lynchburg, VA	16	28	358	593
Macon, GA	11	24	256	513
Madera, CA	7	15	162	344
Manchester, NH	13	22	302	498
Mandeville-Covington, LA	23	37	539	848
Manhattan, KS	6	9	126	186
Mankato, MN	7	10	156	221
Mansfield, OH	5	13	114	282
Manteca, CA	26	37	599	837
Marysville, WA	10	24	228	555
Mauldin-Simpsonville, SC	16	27	378	602
Mayaguez, PR	26	42	701	1,059
McKinney, TX	12	19	278	433
Medford, OR	8	15	181	334
Merced, CA	8	13	192	299
Michigan City-La Porte, IN-MI	5	11	112	236
Middletown, OH	7	14	159	317
Midland, MI	6	11	116	231
Midland, TX	18	27	416	638
Mission Viejo-Lake Forest-San Clemente, CA	15	38	343	828
Missoula, MT	9	24	201	502
Mobile AL	18	30	396	656
Modesto, CA	21	30	492	687
Monessen-California, PA	9	13	195	262
Monroe, LA	12	18	268	392
Monroe, MI	4	10	105	230
Montgomery, AL	10	25	224	542
Morgantown, WV	4	12	99	277
Morristown, TN	10	22	225	482
Mount Vernon, WA	17	26	389	577
Muncie, IN	4	11	96	244
Murrieta-Temecula-Menifee CA	11	29	247	641

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Muskegon, MI	6	11	132	243
Myrtle Beach-Socastee, SC-NC	17	33	384	723
Nampa, ID	6	17	135	350
Napa, CA	17	46	389	1004
Nashua, NH-MA	14	22	317	491
New Bedford, MA	13	22	285	472
New Bern, NC	7	12	154	272
Newark, OH	11	19	245	398
Norman, OK	25	38	551	843
North Port-Port Charlotte, FL	6	17	125	382
Norwich-New London, CT-RI	17	24	390	526
Ocala, FL	10	27	219	577
Odessa, TX	30	40	685	897
Ogden-Layton, UT	8	14	218	350
Olympia-Lacey, WA	11	28	269	633
Oshkosh, WI	5	12	110	264
Owensboro, KY	6	15	134	356
Palm Bay-Melbourne, FL	12	23	271	490
Palm Coast-Daytona Beach-Port Orange, FL	12	21	270	470
Panama City, FL	13	31	288	664
Parkersburg, WV-OH	6	11	132	249
Pascagoula, MS	6	15	129	314
Peoria, IL	9	13	195	284
Petaluma, CA	14	38	320	826
Pine Bluff, AR	6	11	129	257
Pittsfield, MA	10	15	237	325
Pocatello, ID	5	13	120	284
Ponce, PR	9	18	248	492
Port Arthur, TX	15	22	340	495
Port Huron, MI	10	17	223	383
Port St. Lucie, FL	14	23	314	505
Porterville, CA	3	7	70	145
Portland, ME	16	28	369	611
Portsmouth, NH-ME	22	30	498	644
Pottstown, PA	8	15	178	320
Prescott Valley-Prescott, AZ	8	20	184	459
Pueblo, CO	13	20	291	448
Racine, WI	10	20	261	464
Rapid City, SD	12	20	276	454
Reading, PA	9	21	209	448
Redding, CA	13	23	305	533
Reno, NV-CA	11	26	263	571
Roanoke, VA	10	25	227	551
Rochester, MN	14	19	313	415
Rock Hill, SC	12	26	279	610
Rockford, IL	8	18	198	417
Rocky Mount, NC	8	18	186	387
Rome, GA	13	33	291	712
Round Lake Bch-McHenry-Grayslake, IL-WI	1	1	17	29
Saginaw, MI	6	17	143	377

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Salinas, CA	15	27	349	623
Salisbury, MD-DE	10	19	224	419
San Angelo, TX	8	18	182	393
San German-Cabo Rojo-Sabana Grande, PR	4	10	120	260
San Luis Obispo, CA	8	20	177	442
San Marcos, TX	8	15	205	360
Santa Barbara, CA	17	47	406	1,047
Santa Clarita, CA	11	28	247	618
Santa Cruz, CA	29	42	661	923
Santa Fe, NM	13	28	299	621
Santa Maria, CA	6	16	146	358
Santa Rosa, CA	22	53	512	1,151
Saratoga Springs, NY	19	26	442	591
Savannah, GA	14	35	320	742
Scranton, PA	10	19	223	429
Seaside-Monterey, CA	22	48	530	1,104
Sebastian-Vero Beach S-Florida Ridge, FL	8	14	172	304
Sebring-Avon Park, FL	6	11	148	247
Sheboygan, WI	4	11	100	229
Sherman, TX	8	13	181	299
Shreveport, LA	15	28	382	658
Sierra Vista, AZ	3	8	78	176
Simi Valley, CA	9	20	201	441
Sioux City, IA-NE-SD	6	14	138	296
Sioux Falls, SD	9	19	206	413
Slidell, LA	8	15	190	335
South Bend, IN-MI	6	13	127	293
South Lyon-Howell, MI	10	16	226	372
Spartanburg, SC	16	26	357	590
Spring Hill, FL	7	11	157	231
Springfield, IL	9	14	214	309
Springfield, MO	16	34	375	746
Springfield, OH	4	9	88	211
St. Augustine, FL	12	27	271	584
St. Cloud, MN	7	17	148	375
St. George, UT	8	12	214	283
St. Joseph, MO-KS	6	14	136	315
State College, PA	7	13	163	283
Staunton-Waynesboro, VA	9	14	190	297
Sumter, SC	10	19	232	428
Syracuse, NY	11	18	262	411
Tallahassee, FL	15	33	334	725
Temple, TX	17	27	408	605
Terre Haute, IN	7	18	168	421
Texarkana, TX-AR	12	20	292	452
Texas City, TX	11	17	239	364
Thousand Oaks, CA	31	41	706	892
Titusville, FL	5	10	131	229
Topeka, KS	10	21	222	465
Tracy, CA	14	36	342	822

Table 8. Excess Travel Time and Congestion Cost per 2019 Auto Commuter, Continued

Urban Area	Annual Delay per 2019 Auto Commuter (Person-Hours)		Annual Congestion Cost per 2019 Auto Commuter (2020 $)	
	2020	2019	2020	2019
Trenton, NJ	14	28	327	614
Turlock, CA	11	29	279	665
Tuscaloosa, AL	11	31	255	666
Twin Rivers-Hightstown, NJ	13	27	288	598
Tyler, TX	20	32	477	724
Uniontown-Connellsville, PA	7	16	162	350
Utica, NY	10	18	221	394
Vacaville, CA	11	27	246	591
Valdosta, GA	9	23	205	494
Vallejo, CA	20	40	474	886
Victoria, TX	18	29	430	656
Victorville-Hesperia, CA	8	16	185	378
Villas, NJ	8	10	162	202
Vineland, NJ	7	14	164	316
Visalia, CA	13	18	306	406
Waco, TX	14	31	343	711
Waldorf, MD	13	23	293	492
Walla Walla, WA-OR	4	10	79	207
Warner Robins, GA	12	18	268	393
Waterbury, CT	14	21	334	477
Waterloo, IA	3	8	70	184
Watertown, NY	5	9	107	203
Watsonville, CA	9	20	203	426
Wausau, WI	7	14	172	319
Weirton-Steubenville, WV-OH-PA	6	17	155	383
Wenatchee, WA	11	26	261	591
West Bend, WI	5	11	115	238
Westminster-Eldersburg, MD	9	22	199	488
Wheeling, WV-OH	19	26	450	592
Wichita Falls, TX	7	13	168	294
Williamsburg, VA	13	19	272	402
Williamsport, PA	11	20	245	439
Wilmington, NC	13	28	271	575
Winchester, VA	22	31	511	715
Winter Haven, FL	8	17	191	382
Woodland, CA	8	12	169	254
Yakima, WA	7	19	168	428
Yauco, PR	3	6	66	140
York, PA	12	21	284	467
Youngstown, OH-PA	9	18	201	397
Yuba City, CA	7	20	163	433
Yuma, AZ-CA	7	19	167	426
Zephyrhills, FL	14	19	309	417

A dash indicates the value rounds to zero.
Yearly Delay—Extra travel time during the year.
Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.
Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).

Table 9. Urban Area Excess Travel Time and Congestion Cost

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Aberdeen-Bel Air S-Bel Air N, MD	3,134	5,257	70	115
Abilene, TX	1,708	2,548	40	57
Aguadilla-Isabela-San Sebastian, PR	2,840	4,759	72	115
Albany, GA	771	1,905	18	43
Albany, OR	501	1,046	12	24
Alexandria, LA	1,274	2,482	30	57
Alton, IL-MO	5	13	-	-
Altoona, PA	1,055	1,393	24	31
Amarillo, TX	2,257	4,600	51	100
Ames, IA	305	939	7	20
Anderson, IN	436	1,476	10	34
Anderson, SC	980	1,948	22	43
Ann Arbor, MI	3,239	6,726	72	146
Anniston-Oxford, AL	1,022	1,818	22	39
Antioch, CA	3,143	9,345	68	196
Appleton, WI	1,560	3,821	35	83
Arecibo, PR	2,042	3,462	50	84
Arroyo Grande-Grover Beach, CA	1,410	2,223	35	52
Asheville, NC	5,722	8,689	127	188
Athens-Clarke County, GA	1,707	3,772	38	80
Atlantic City, NJ	3,923	5,097	88	110
Auburn, AL	1,312	2,672	29	57
Augusta-Richmond County, GA-SC	5,114	8,536	117	190
Avondale-Goodyear, AZ	3,584	6,054	83	138
Bangor, ME	827	1,689	19	37
Barnstable Town, MA	4,029	5,252	91	116
Battle Creek, MI	499	1,313	12	29
Bay City, MI	467	1,244	10	27
Beckley, WV	878	1,168	22	29
Bellingham, WA	1,897	3,537	42	76
Beloit, WI-IL	281	756	7	17
Bend, OR	963	2,582	23	59
Benton Harbor-St. Joseph-Fair Plain, MI	362	790	8	18
Billings, MT	1,151	2,710	26	59
Binghamton, NY-PA	2,399	3,539	54	77
Bismarck, ND	960	1,808	21	38
Blacksburg, VA	698	1,401	15	29
Bloomington, IN	728	1,888	17	43
Bloomington-Normal, IL	633	1,581	14	34
Bloomsburg-Berwick, PA	566	778	13	17
Bonita Springs, FL	3,992	11,485	88	249
Bowling Green, KY	1,161	2,808	27	63
Bremerton, WA	2,412	5,142	54	113
Bristol, TN-VA	1,383	1,771	32	40
Brunswick, GA	648	1,513	15	33
Burlington, NC	1,126	2,105	25	46
Burlington, VT	2,253	3,024	50	66
Camarillo, CA	1,308	2,845	29	60
Canton, OH	3,050	6,366	69	138
Cape Girardeau, MO-IL	600	1,224	14	27

Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Carbondale, IL	413	784	9	17
Carson City, NV	486	1,193	11	26
Cartersville, GA	584	1,462	13	32
Casa Grande, AZ	322	907	8	21
Casper, WY	539	1,116	12	24
Cedar Rapids, IA	2,287	3,752	52	83
Chambersburg, PA	557	872	13	20
Champaign, IL	1,201	1,875	27	40
Charleston, WV	1,840	2,669	44	63
Charlottesville, VA	1,983	4,026	43	84
Chattanooga, TN-GA	6,053	12,878	142	302
Cheyenne, WY	482	1,193	11	26
Chico, CA	701	1,793	16	39
Clarksville, TN-KY	1,474	3,995	34	89
Cleveland, TN	865	1,865	20	42
Coeur d'Alene, ID	1,201	2,632	26	57
College Station-Bryan, TX	2,659	5,657	60	122
Columbia, MO	2,006	2,845	46	63
Columbus, GA-AL	2,816	5,458	64	119
Columbus, IN	618	877	14	19
Concord, CA	14,323	41,430	327	899
Concord, NC	2,380	5,195	54	115
Conroe-The Woodlands, TX	5,879	9,533	132	207
Conway, AR	899	1,933	20	41
Corvallis, OR	336	905	8	20
Cumberland, MD-WV-PA	913	1,518	21	34
Dalton, GA	631	1,772	14	40
Danbury, CT-NY	2,557	3,479	57	75
Danville, IL	204	541	5	12
Daphne-Fairhope, AL	1,608	2,564	35	54
Davenport, IA-IL	2,579	4,002	58	85
Davis, CA	2,065	3,194	48	72
DeKalb, IL	262	641	6	14
Decatur, AL	875	1,876	19	40
Decatur, IL	399	1,091	9	24
Delano, CA	408	1,087	9	25
Deltona, FL	1,417	3,343	31	72
Denton-Lewisville, TX	8,309	12,450	186	273
Des Moines, IA	3,468	8,791	77	188
Dothan, AL	972	2,901	22	64
Dover, DE	1,300	2,777	29	61
Dover-Rochester, NH-ME	1,367	1,827	31	40
Dubuque, IA-IL	465	1,214	11	26
Duluth, MN-WI	999	2,093	22	46
Durham, NC	6,841	12,999	149	272
East Stroudsburg, PA-NJ	1,123	1,480	26	33
Eau Claire, WI	655	1,549	15	34
El Centro-Calexico, CA	689	1,754	16	39
El Paso de Robles-Atascadero, CA	970	2,556	23	57
Elizabethtown-Radcliff, KY	679	1,496	15	32

Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Elkhart, IN-MI	1,152	2,252	27	52
Elmira, NY	542	974	12	21
Erie, PA	1,562	3,547	34	77
Evansville, IN-KY	1,872	4,685	41	104
Fairbanks, AK	987	2,472	22	55
Fairfield, CA	3,262	8,551	72	186
Fajardo, PR	438	710	12	19
Fargo, ND-MN	1,506	4,052	32	88
Farmington, NM	436	1,154	10	25
Fayetteville, NC	3,142	7,829	67	167
Fayetteville-Springdale-Rogers, AR-MO	4,490	10,490	97	232
Flagstaff, AZ	688	1,467	16	33
Flint, MI	2,412	5,663	53	123
Florence, AL	1,139	2,481	25	53
Florence, SC	1,968	3,186	43	71
Florida-Imbrey-Barceloneta, PR	336	724	8	18
Fond du Lac, WI	323	786	7	17
Fort Collins, CO	3,465	6,704	75	147
Fort Smith, AR-OK	1,221	3,068	26	66
Fort Walton Beach-Navarre-Wright, FL	2,342	5,453	50	119
Fort Wayne, IN	2,768	6,291	62	143
Frederick, MD	2,443	4,098	54	91
Fredericksburg, VA	2,905	5,431	63	118
Gadsden, AL	778	2,013	17	44
Gainesville, FL	2,263	5,843	49	126
Gainesville, GA	1,582	3,636	35	81
Gastonia, NC-SC	1,977	4,474	43	97
Gilroy-Morgan Hill, CA	1,600	4,031	35	88
Glens Falls, NY	947	1,580	21	35
Goldsboro, NC	577	1,336	13	29
Grand Forks, ND-MN	840	2,338	18	50
Grand Island, NE	309	744	7	16
Grand Junction, CO	655	1,649	14	37
Grants Pass, OR	566	1,192	13	28
Great Falls, MT	365	960	8	21
Greeley, CO	1,412	3,312	31	73
Green Bay, WI	1,805	3,703	41	82
Greenville, NC	1,693	4,259	36	92
Greenville, SC	7,227	13,331	159	301
Guayama, PR	349	855	10	22
Gulfport, MS	3,239	5,530	69	118
Hagerstown, MD-WV-PA	2,401	3,367	56	77
Hammond, LA	652	1,294	15	32
Hanford, CA	427	956	10	22
Hanover, PA	646	1,207	15	27
Harlingen, TX	1,367	3,120	30	68
Harrisburg, PA	6,598	11,662	154	263
Harrisonburg, VA	675	1,703	14	36
Hattiesburg, MS	1,140	2,378	24	51
Hazleton, PA	545	966	12	21

Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Hemet, CA	753	1,568	18	36
Hickory, NC	1,856	4,441	42	95
High Point, NC	1,262	3,037	28	65
Hilton Head Island, SC	1,341	2,065	30	45
Hinesville, GA	295	719	7	15
Holland, MI	1,060	1,363	24	29
Homosassa Spr-Beverly Hills-Citrus Spr, FL	1,171	1,600	27	35
Hot Springs, AR	865	1,635	19	34
Houma, LA	1,085	2,700	25	61
Huntington, WV-KY-OH	1,885	3,952	43	88
Huntsville, AL	5,232	10,482	114	221
Idaho Falls, ID	695	1,397	15	30
Iowa City, IA	786	2,023	18	44
Ithaca, NY	974	1,637	22	35
Jackson, MI	690	1,575	16	35
Jackson, TN	883	2,316	21	52
Jacksonville, NC	1,212	2,557	27	54
Janesville, WI	771	1,528	18	33
Jefferson City, MO	704	1,537	16	33
Johnson City, TN	1,596	2,686	36	58
Johnstown, PA	346	830	8	18
Jonesboro, AR	1,374	1,995	31	43
Joplin, MO	684	1,825	15	41
Juana Díaz, PR	147	350	4	8
Kahului, HI	731	2,074	17	46
Kailua (Honolulu County)-Kaneohe, HI	1,155	3,232	27	72
Kalamazoo, MI	2,052	3,807	45	82
Kankakee, IL	401	1,158	9	26
Kennewick-Pasco, WA	1,560	4,270	36	96
Kenosha, WI-IL	1,737	3,148	42	71
Killeen, TX	2,636	3,639	59	80
Kingsport, TN-VA	872	2,159	19	48
Kingston, NY	1,568	2,122	35	45
Kissimmee, FL	5,092	15,656	114	339
Kokomo, IN	327	844	7	18
La Crosse, WI-MN	970	1,865	22	41
Lady Lake-The Villages, FL	978	1,761	22	39
Lafayette, IN	1,079	2,862	25	65
Lafayette, LA	3,331	7,516	80	175
Lafayette-Louisville-Erie, CO	818	1,738	18	36
Lake Charles, LA	2,533	6,287	63	148
Lake Havasu City, AZ	191	498	4	11
Lake Jackson-Angleton, TX	1,482	2,205	34	48
Lakeland, FL	3,099	6,359	73	140
Lancaster, PA	5,683	7,871	129	172
Lansing, MI	3,115	5,135	68	110
Las Cruces, NM	1,236	2,978	28	65
Lawrence, KS	700	1,655	15	36
Lawton, OK	448	1,078	10	23
Lebanon, PA	355	762	8	17

Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Leesburg-Eustis-Tavares, FL	1,545	2,991	35	66
Leominster-Fitchburg, MA	1,757	2,464	39	53
Lewiston, ID-WA	292	770	7	17
Lewiston, ME	716	1,534	17	35
Lexington Park-Cal-Ches Ranch Estates, MD	899	1,387	20	29
Lexington-Fayette, KY	4,137	10,993	94	241
Lima, OH	444	1,016	10	22
Lincoln, NE	2,054	5,316	46	114
Livermore, CA	1,534	4,026	35	89
Lodi, CA	1,690	2,786	41	64
Logan, UT	307	864	8	21
Lompoc, CA	186	502	4	12
Longmont, CO	1,495	2,858	33	60
Longview, TX	2,142	3,569	48	78
Longview, WA-OR	817	1,554	19	34
Lorain-Elyria, OH	1,248	2,991	30	66
Los Lunas, NM	321	838	7	18
Lubbock, TX	3,410	4,929	77	107
Lynchburg, VA	2,114	3,651	46	76
Macon, GA	1,703	3,636	40	80
Madera, CA	652	1,486	16	34
Manchester, NH	2,387	4,056	55	90
Mandeville-Covington, LA	2,663	4,202	64	100
Manhattan, KS	454	694	10	15
Mankato, MN	524	768	12	16
Mansfield, OH	437	1,123	10	24
Manteca, CA	2,186	3,197	52	72
Marysville, WA	1,705	4,236	39	94
Mauldin-Simpsonville, SC	2,240	3,707	51	82
Mayaguez, PR	2,826	4,489	68	103
McKinney, TX	2,485	4,003	56	87
Medford, OR	1,517	2,930	35	65
Merced, CA	1,242	2,030	29	46
Michigan City-La Porte, IN-MI	371	794	9	18
Middletown, OH	551	1,133	13	25
Midland, MI	449	921	10	19
Midland, TX	3,167	4,805	77	117
Mission Viejo-Lake Forest-San Clem, CA	9,265	23,362	213	515
Missoula, MT	873	2,263	19	48
Mobile, AL	7,234	12,298	162	269
Modesto, CA	8,084	11,489	186	260
Monessen-California, PA	612	853	14	19
Monroe, LA	1,451	2,210	34	50
Monroe, MI	330	767	8	17
Montgomery, AL	2,778	7,000	62	150
Morgantown, WV	375	1,089	9	25
Morristown, TN	597	1,294	13	28
Mount Vernon, WA	1,045	1,583	24	36
Muncie, IN	405	1,065	9	24
Murrieta-Temecula-Menifee, CA	5,129	13,477	116	301

Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Muskegon, MI	984	1,852	22	41
Myrtle Beach-Socastee, SC-NC	4,561	8,900	102	192
Nampa, ID	1,159	3,077	26	66
Napa, CA	1,595	4,190	36	94
Nashua, NH-MA	3,352	5,456	76	118
New Bedford, MA	2,008	3,466	45	75
New Bern, NC	504	922	11	20
Newark, OH	1,724	2,871	39	63
Norman, OK	2,438	3,803	55	84
North Port-Port Charlotte, FL	1,078	3,331	24	73
Norwich-New London, CT-RI	2,826	3,983	65	87
Ocala, FL	1,720	4,704	39	103
Odessa, TX	3,650	4,949	87	114
Ogden-Layton, UT	4,951	8,503	129	208
Olympia-Lacey, WA	2,304	5,551	52	124
Oshkosh, WI	403	1,012	9	22
Owensboro, KY	449	1,188	11	28
Palm Bay-Melbourne, FL	5,929	11,076	134	242
Palm Coast-Daytona Beach-Port Orange, FL	4,097	7,411	93	161
Panama City, FL	2,036	4,861	46	106
Parkersburg, WV-OH	521	1,013	12	23
Pascagoula, MS	342	870	8	18
Peoria, IL	2,508	3,731	56	81
Petaluma, CA	1,219	3,245	28	72
Pine Bluff, AR	417	867	9	19
Pittsfield, MA	861	1,214	19	26
Pocatello, ID	423	1,040	9	22
Ponce, PR	1,350	2,787	31	62
Port Arthur, TX	2,285	3,388	52	75
Port Huron, MI	881	1,600	21	36
Port St. Lucie, FL	6,060	10,029	136	220
Porterville, CA	230	493	5	11
Portland, ME	3,429	5,830	78	128
Portsmouth, NH-ME	2,255	3,074	52	67
Pottstown, PA	859	1,603	19	35
Prescott Valley-Prescott, AZ	797	2,054	18	46
Pueblo, CO	1,970	3,125	44	68
Racine, WI	1,513	2,886	37	66
Rapid City, SD	1,198	2,010	27	44
Reading, PA	2,469	5,558	57	121
Redding, CA	1,763	3,148	41	72
Reno, NV-CA	4,936	11,229	113	245
Roanoke, VA	2,264	5,684	50	122
Rochester, MN	1,692	2,323	37	49
Rock Hill, SC	1,389	3,096	31	68
Rockford, IL	2,538	5,627	58	122
Rocky Mount, NC	565	1,220	13	26
Rome, GA	1,066	2,720	24	58
Round Lake Bch-McHenry-Grayslake, IL-WI	215	396	5	9
Saginaw, MI	805	2,181	18	47

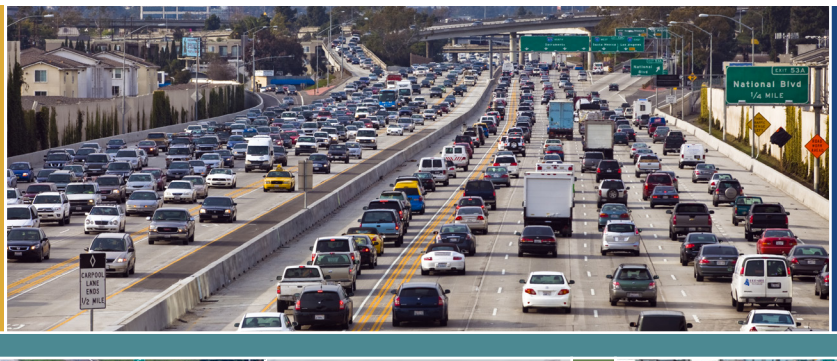
Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

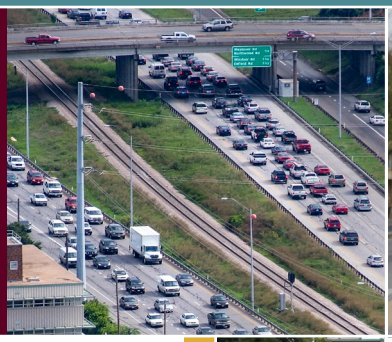
Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Salinas, CA	2,947	5,420	69	123
Salisbury, MD-DE	1,015	1,994	23	43
San Angelo, TX	1,081	2,421	25	53
San German-Cabo Rojo-Sabana Grande, PR	527	1,197	12	27
San Luis Obispo, CA	615	1,600	14	35
San Marcos, TX	1,241	2,262	28	49
Santa Barbara, CA	3,809	10,286	90	231
Santa Clarita, CA	2,672	7,012	61	152
Santa Cruz, CA	7,263	10,612	170	237
Santa Fe, NM	1,323	2,803	29	61
Santa Maria, CA	910	2,314	21	52
Santa Rosa, CA	7,830	18,461	178	400
Saratoga Springs, NY	1,430	1,943	32	43
Savannah, GA	4,060	9,878	93	216
Scranton, PA	3,933	7,726	88	170
Seaside-Monterey, CA	2,879	6,195	68	142
Sebastian-Vero Beach S-Florida Ridge, FL	1,434	2,529	33	55
Sebring-Avon Park, FL	591	1,039	14	23
Sheboygan, WI	353	845	8	18
Sherman, TX	883	1,476	20	33
Shreveport, LA	4,743	8,524	115	198
Sierra Vista, AZ	250	583	6	13
Simi Valley, CA	1,141	2,624	26	56
Sioux City, IA-NE-SD	687	1,587	16	35
Sioux Falls, SD	1,708	3,529	38	75
Slidell, LA	762	1,447	18	32
South Bend, IN-MI	1,581	3,716	37	85
South Lyon-Howell, MI	1,293	2,190	29	47
Spartanburg, SC	3,306	5,577	73	120
Spring Hill, FL	1,530	2,322	34	49
Springfield, IL	1,669	2,510	38	55
Springfield, MO	5,091	10,702	116	231
Springfield, OH	354	888	8	19
St. Augustine, FL	1,004	2,200	22	47
St. Cloud, MN	784	2,054	17	44
St. George, UT	1,109	1,537	30	39
St. Joseph, MO-KS	526	1,259	12	27
State College, PA	721	1,282	16	27
Staunton-Waynesboro, VA	773	1,245	17	26
Sumter, SC	794	1,528	18	33
Syracuse, NY	4,847	7,819	108	170
Tallahassee, FL	3,337	7,460	73	159
Temple, TX	1,770	2,740	41	61
Terre Haute, IN	722	1,905	17	42
Texarkana, TX-AR	1,417	2,269	32	49
Texas City, TX	1,600	2,533	36	55
Thousand Oaks, CA	6,841	9,029	154	194
Titusville, FL	425	784	10	17
Topeka, KS	1,495	3,264	34	72
Tracy, CA	1,383	3,485	32	77

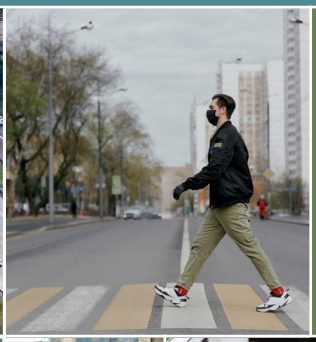
Table 9. Urban Area Excess Travel Time and Congestion Cost, Continued

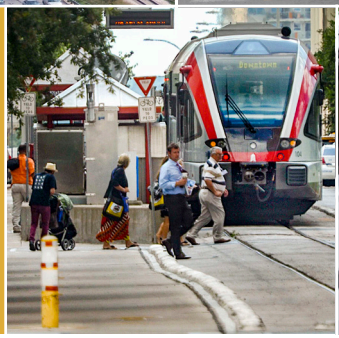
Urban Area	Annual Person-Hours of Delay (000)		Annual Congestion Cost (2020 $millions)	
	2020	2019	2020	2019
Trenton, NJ	4,312	8,467	96	180
Turlock, CA	1,270	3,215	30	72
Tuscaloosa, AL	1,883	5,089	41	108
Twin Rivers-Hightstown, NJ	896	1,912	20	41
Tyler, TX	3,586	5,666	85	129
Uniontown-Connellsville, PA	384	846	9	19
Utica, NY	1,200	2,208	27	48
Vacaville, CA	1,129	2,860	25	61
Valdosta, GA	742	1,910	18	42
Vallejo, CA	4,118	8,150	97	181
Victoria, TX	1,243	1,972	29	43
Victorville-Hesperia, CA	2,728	5,764	65	133
Villas, NJ	485	615	11	13
Vineland, NJ	754	1,505	17	32
Visalia, CA	3,154	4,387	77	102
Waco, TX	2,728	5,929	65	134
Waldorf, MD	1,672	2,924	37	62
Walla Walla, WA-OR	267	726	6	16
Warner Robins, GA	1,757	2,619	39	57
Waterbury, CT	2,928	4,389	66	95
Waterloo, IA	492	1,328	11	28
Watertown, NY	406	790	9	18
Watsonville, CA	713	1,579	16	34
Wausau, WI	617	1,213	14	26
Weirton-Steubenville, WV-OH-PA	458	1,196	11	27
Wenatchee, WA	862	2,061	20	44
West Bend, WI	360	766	8	17
Westminster-Eldersburg, MD	671	1,673	15	37
Wheeling, WV-OH	1,553	2,133	37	49
Wichita Falls, TX	1,058	1,922	24	41
Williamsburg, VA	1,246	1,911	27	40
Williamsport, PA	574	1,054	13	23
Wilmington, NC	3,223	7,113	71	150
Winchester, VA	1,827	2,610	41	57
Winter Haven, FL	2,053	4,254	47	94
Woodland, CA	617	943	14	21
Yakima, WA	1,117	2,961	26	66
Yauco, PR	240	528	6	13
York, PA	3,040	5,225	70	115
Youngstown, OH-PA	3,420	6,885	78	153
Yuba City, CA	940	2,573	22	58
Yuma, AZ-CA	1,015	2,689	23	59
Zephyrhills, FL	926	1,305	21	29

A dash indicates the value rounds to zero.
Yearly Delay—Extra travel time during the year.
Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.
Congestion Cost—The value of 2020 travel time delay (estimated at $20.17 per hour of person travel and $55.24 per hour of truck time) and excess fuel consumption (estimated using the state average cost per gallon for gasoline and diesel).









David Schrank
Senior Research Scientist

Luke Albert
Associate Research Engineer

Bill Eisele
Senior Research Engineer

Tim Lomax
Research Fellow

2021 Urban Mobility REPORT

Texas A&M Transportation Institute

INRIX

NICR
NATIONAL INSTITUTE FOR CONGESTION REDUCTION

Texas Department of Transportation

Texas A&M Transportation Institute
The Texas A&M University System

mobility.tamu.edu/umr