THE STATE OF VMT AND CONGESTION

Measuring 5 Years of
Vehicle Miles Traveled (VMT)

STREETLIGHT

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U.S. VMT ACCELERATES (AGAIN)

Until the pandemic, vehicle miles traveled across the U.S. was on a largely unbroken trajectory upwards. And this trend, while often associated with economic output, also meant higher emissions, and thus a worsening impact on climate and public health. Many places were stretched to the breaking point, clogged by congestion, poor air quality, noise pollution, and an increasing awareness of the negative externalities of an economy dependent on ever-rising gas-powered vehicle travel.

Then stay-at-home orders resulted in an abrupt and dramatic decline in VMT. While this reversal corresponded with pandemic trauma, it also created a different vision of what our cities could be, with less noise, more open space, and cleaner air.

As the pandemic receded and the economy bounced back, changes in work culture raised a new and exciting question: Could the U.S. keep VMT down, or at least below the levels reached by 2019, and keep congestion from coming back, ushering in a new era?

With transportation accounting for the largest share of U.S. emissions, and VMT as their primary driver, this is an urgent question. To answer it, StreetLight analyzes how VMT has trended over the intervening 5 years, from January 2019-May 2024, across the entire U.S. The report also compares the top 100 most-populated metros between spring 2019 and 2024 by:

- Change in VMT

- VMT per capita

- Change in congestion

- Overall congestion

To better understand the relationship between change in congestion and VMT, StreetLight analyzes their correlation within the 25 biggest metros, and in their downtown regions.

While there was some hope that a new remote work culture might keep miles driven down and congestion at bay, StreetLight's results indicate that the status quo isn't working. A reliance on remote work is not a panacea to the rise in VMT and the default solution for traffic—adding roadway capacity—isn't solving congestion.

StreetLight finds that, as of spring 2024, VMT has taken a jump upwards, after steadily increasing since mid-2020. In fact, the uptick in VMT in spring 2024 (January-May) compared to the same period in 2023 marks the steepest year-over-year increase since the initial pandemic bounce back in 2021.

HOW NATIONAL VMT HAS TRENDED OVER THE LAST 5 YEARS
Avg. Daily VMT Per Capita, January '19 - May '24
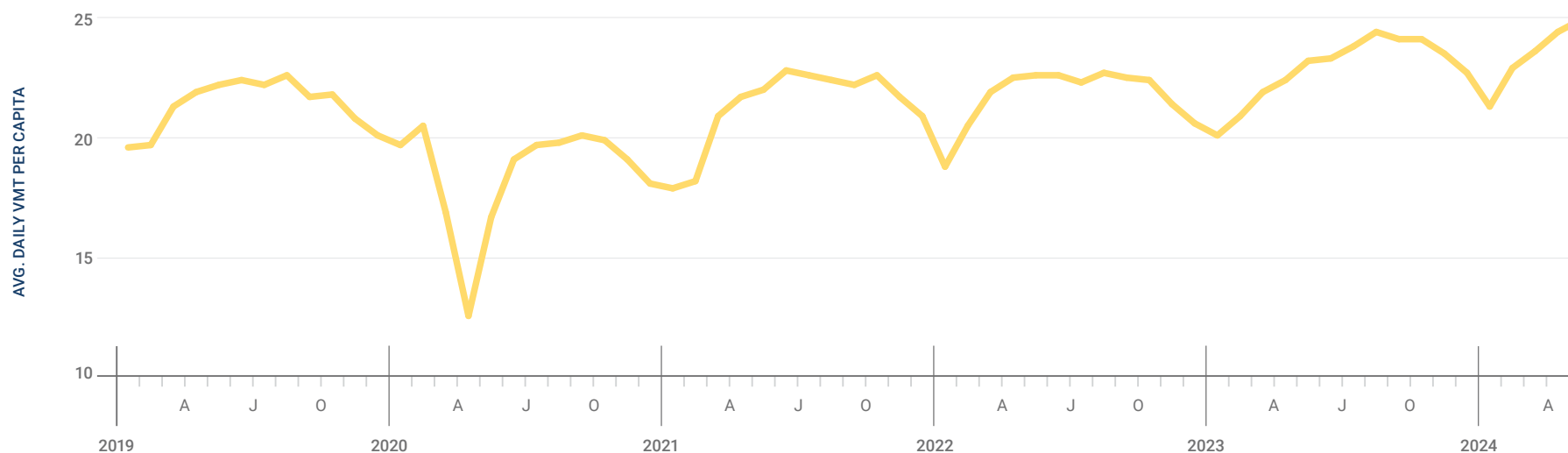
Data includes all CBSAs within the continental U.S.

Metrowide data follows a similar pattern as the national data. Overwhelmingly, VMT accelerated in the last year, as compared to 2022-2023. This is a flashing red light to localities. **Without significant changes, the upward trend in VMT shows no signs of peaking.**

The data also offers strong evidence that congestion won't be tackled without meaningfully tackling VMT. Only two metros out of 100 had less congestion in spring 2024 as compared to spring 2019, and as we'll see in the next section, the correlation between VMT and congestion in the biggest metros, and their associated downtowns is quite strong.

While historically, VMT growth has been a proxy for economic growth, GDP now stands above 2019 levels even in the metros where VMT is still down. This is a signal that GDP growth can be decoupled from VMT growth.

For transportation agencies and their partners at the local, state, and federal level tackling congestion and VMT on behalf of safety, equity, public health, climate, or economic goals, infrastructure investments like transit and denser land use can help pull the VMT trendline downward while supporting GDP. The challenge is reimagining cities and suburbs to enable vibrant, less vehicle-centric lifestyles.

CORRELATION BETWEEN VMT AND CONGESTION

VMT and congestion are, of course, related, but historically there has been an effort to tackle congestion by building more roadway capacity, a tactic that encourages VMT. To better understand the strength of the correlation between VMT and congestion, StreetLight analyzed the relationship between change in congestion and change in VMT in the top 25 biggest metros, which are major economic drivers.

The positive correlation seen in the chart below suggests a potential underlying relationship between the rise in VMT and the rise in congestion. While five of these metros see VMT still below spring 2019 levels, just one, San Franscisco, sees congestion a hair below where it was in 2019.

TOP 25 METROS | CORRELATING VMT AND CONGESTION
% Change in VMT vs. % Change in Congestion, Spring '19 - Spring '24
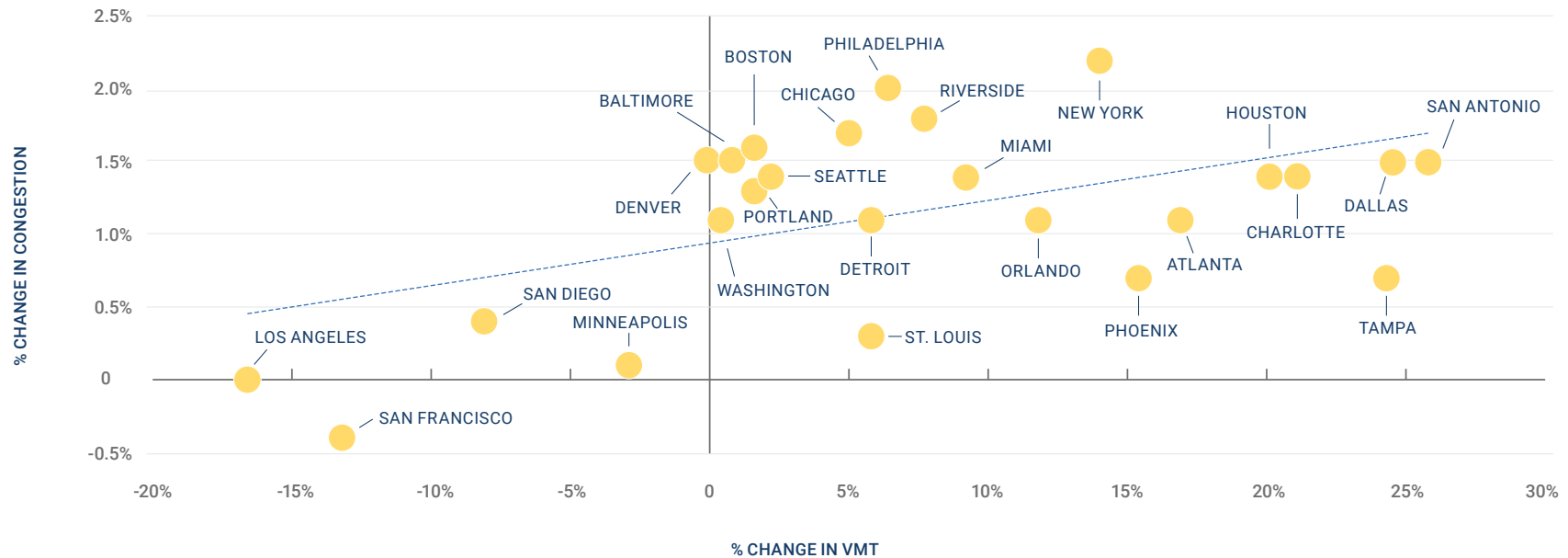
The trendline is also telling when we look at downtowns in these top 25 metros. While 18 metro region's downtowns see VMT still below the levels reached in spring 2019, only seven of these actually see congestion declining. The downtowns with reduced congestion have reduced VMT by at least 10%, with the exception of Phoenix, where VMT has actually risen slightly.

Metro New York's urban core, in particular, has seen both the biggest increase in VMT over the past 5 years and the biggest increase in congestion. The city's transportation system has been in the news recently due to the pause on its congestion pricing rollout, a policy that had been aimed at tackling congestion in the urban core and boosting transit funding. The data shows that the city's economic center has indeed seen the biggest increase among its peers in both congestion and VMT.

TOP 25 DOWNTOWNS* | CORRELATING VMT AND CONGESTION
% Change in VMT vs. % Change in Congestion, Spring '19 - Spring '24
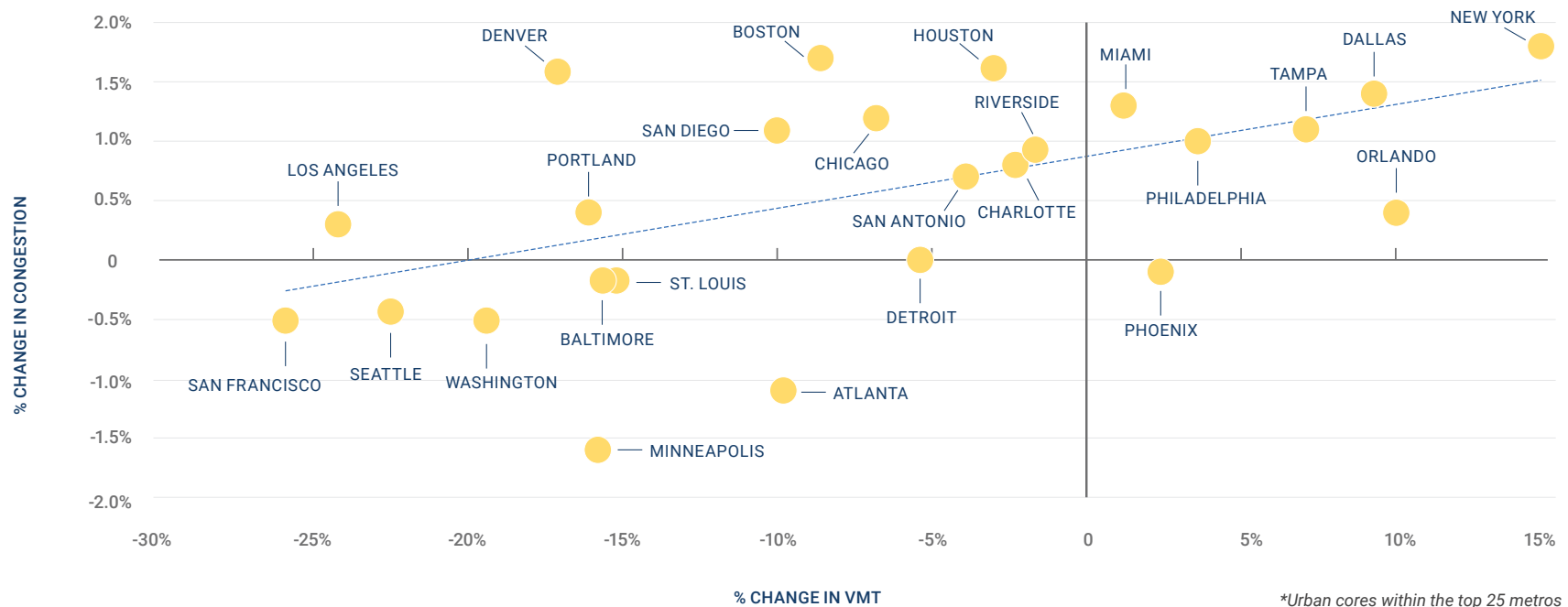
*Urban cores within the top 25 metros

KEY NATIONAL, METRO, AND DOWNTOWN FINDINGS

NATIONAL TRENDS

- Nationally, VMT per capita was up 12% in May 2024 compared to May 2019. While some theorized that the remote work trend might keep VMT depressed following the pandemic, the data shows this is not the case.

- January through May 2024 saw a bigger increase in VMT compared to the same period in 2023 than any year since the initial pandemic bounce back.

TOP 25 METRO & DOWNTOWN TRENDS

- **Among the 25 most populous metros, the correlation between VMT and congestion is pronounced**. Five see VMT still below spring 2019 levels. Just one, San Franscisco, sees congestion a hair below where it was in 2019.

- Downtown areas in the top 25 of these metros also exhibit a correlation between VMT and congestion. VMT is down in 18 of these urban cores compared to 2019, but congestion is only down in eight of them.

- **Nearly every metro whose downtown regions reduced congestion reduced VMT by double digits or more,** suggesting that congestion is quite stubborn on these taxed urban roads.

- Metro Minneapolis' urban core region saw the biggest drop in congestion over the 5-year period, accompanied by a 16% decrease in VMT. While Minneapolis' downtown had struggled, as of Feb. 2024 it led its peers in increased foot traffic, according to the University of Toronto's Downtown Recovery report.

- New York metro, including New York City, where congestion pricing was paused, stands out as seeing **the biggest increase in both congestion and VMT among the top 25 metros' urban cores.**

TOP 100 METRO TRENDS

- **88 of the top 100 metros in the U.S. saw VMT increase from spring 2019 through spring 2024.** Only four metros saw decreases in the double digits.

- **Congestion is up in nearly every metro.** Only six of the top 100 metros managed to keep congestion at or below levels seen in 2019.

- California sees a concentration of metros that have kept VMT below 2019 levels. The only other large metro that hasn't seen VMT rise since 2019 is Washington D.C.

- While VMT is often associated with economic output, the data shows this is not preordained. **In all 10 metros with decreased VMT over the 5-year study period, GDP was also up between 2019 and 2022, the last date for which data is available.** In general, VMT was even lower in 2022, as compared to 2024, a further indication that VMT can be decoupled from GDP.

- San Francisco ranks as the best-performing metro for congestion reduction. It also sees daily VMT per capita reduced by 13%.

- New York, Washington, and California outperform the rest of the U.S. for VMT as of spring 2024. Those three states are home to nine of the top 10 metros with the lowest daily VMT per capita.

- The 10 metros that perform worst for overall daily VMT per capita are concentrated in the southeast. These are places with sprawling geographies and often limited public transit availability.

- Los Angeles, a metro which is notorious for traffic, does in fact rank worst for overall congestion, despite VMT being down. **While VMT reduction has not yet translated to a reduction in congestion, LA has managed to keep traffic from worsening, unlike most of its peers.**

- When ranking metros by population, the New York City metro region saw congestion worsen over the 5-year period faster than the next 47 most populous cities.
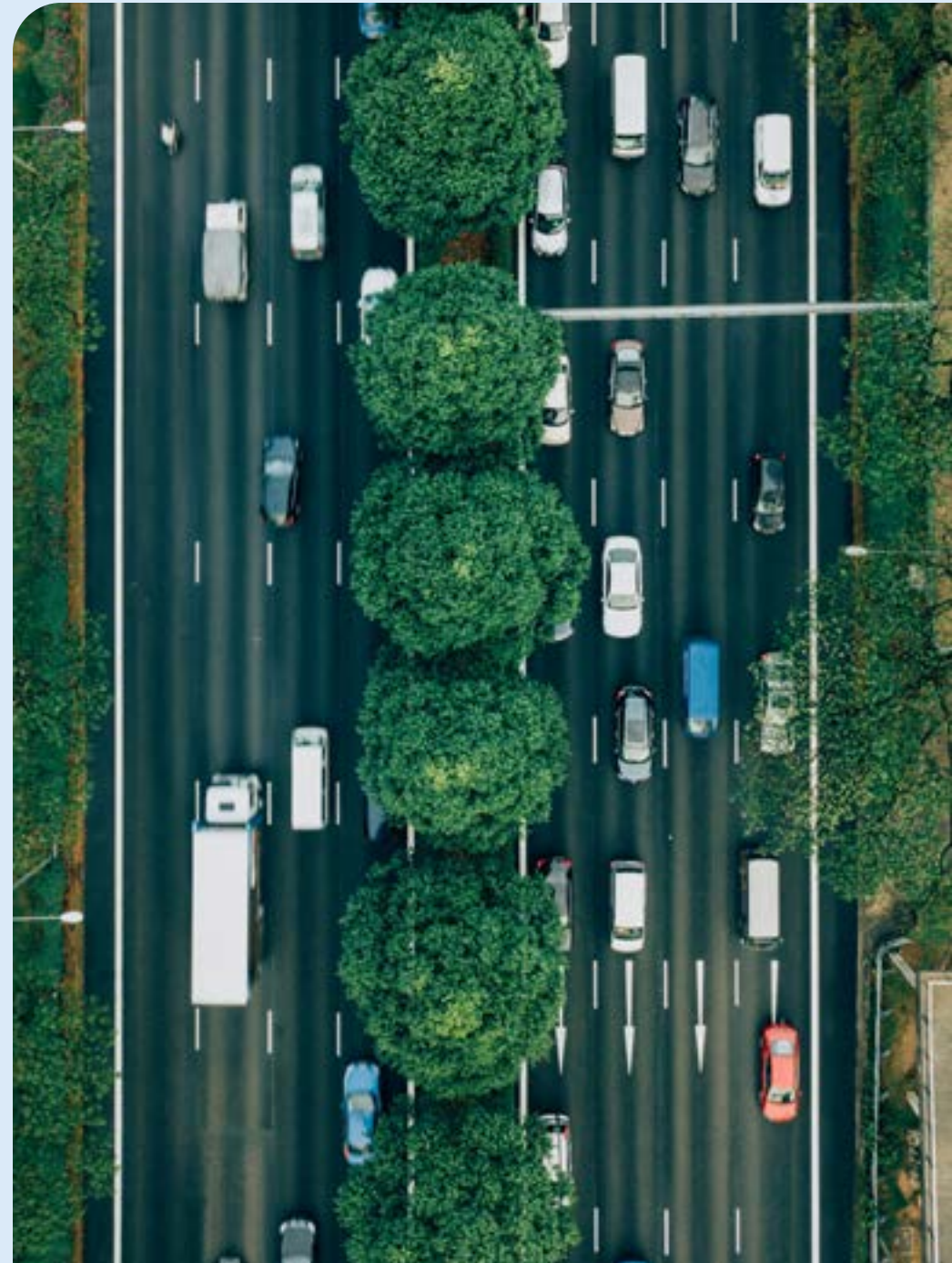
CHARTS TELL THE STORY |
TOP 100 METROS

VMT GROWTH IN THE TOP 100 METROS
% Change in Avg. Daily VMT Spring '19 - Spring '24

METRO POPULATION
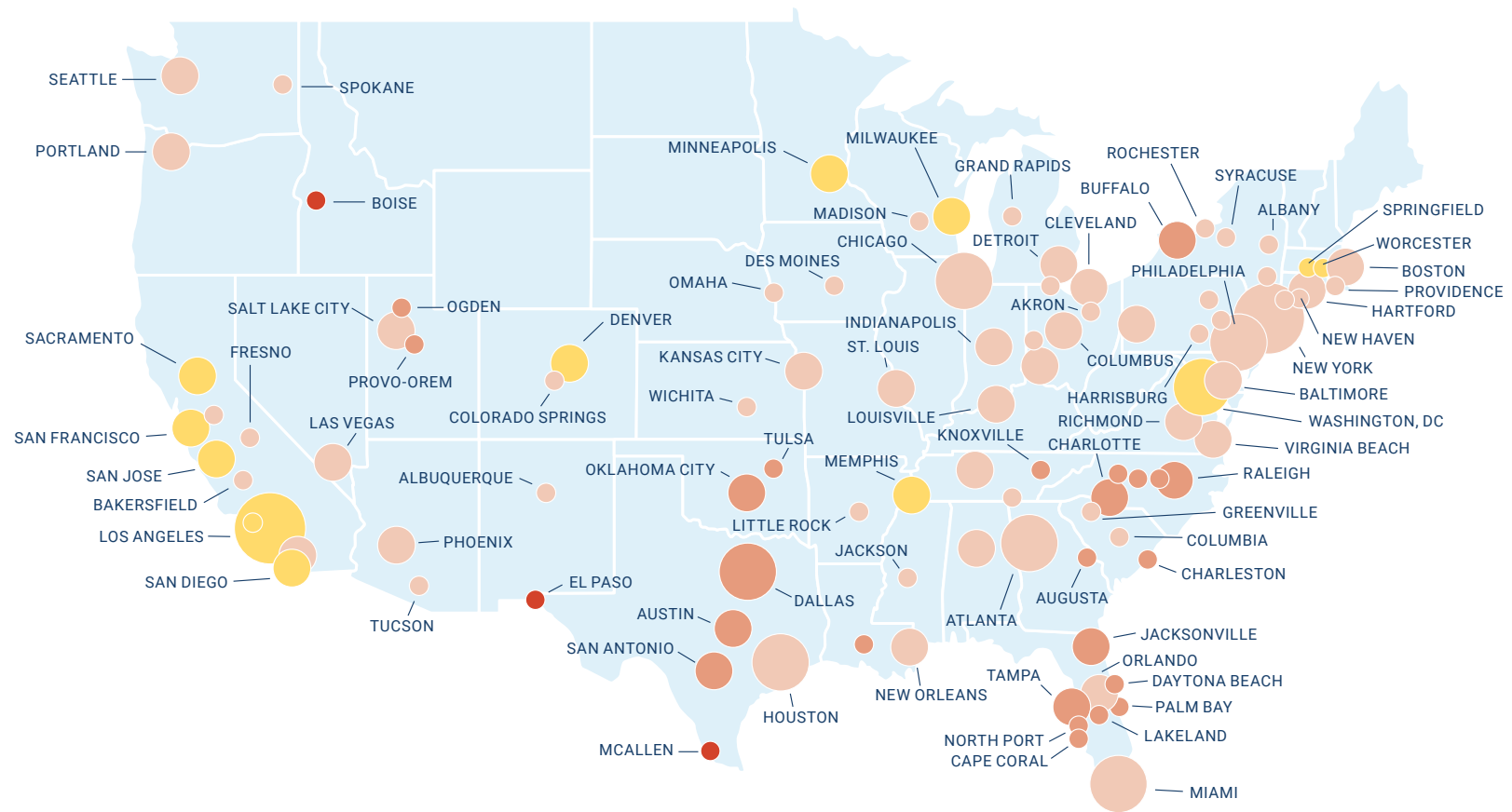
10 million +   5 to 10 million   1 to 5 million   0 to 1 million

VMT PERCENTAGE CHANGE

-20% to 0%   1% to 20%   21% to 40%   41% or more

STREETLIGHT
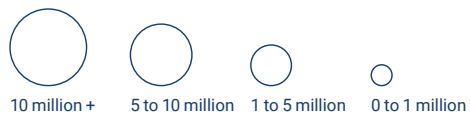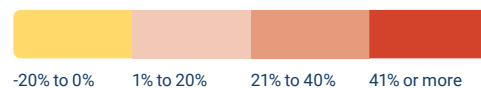
Top 100 metros are abbreviated by common CBSA naming convention.

Numbers are rounded for simplicity. Color coding of ranking reflects rounding.

TOP 50 U.S. METROS RANKED BY VMT % CHANGE
% Change in Avg. Daily VMT Spring '19 - Spring '24

↑50

|	Rank	% Change		Rank	% Change
Los Angeles-Long Beach-Anaheim, CA	1	-17	New Haven-Milford, CT	26	5
Oxnard-Thousand Oaks-Ventura, CA	2	-16	Bridgeport-Stamford-Norwalk, CT	27	5
San Francisco-Oakland-Berkeley, CA	3	-13	Rochester, NY	28	6
San Jose-Sunnyvale-Santa Clara, CA	4	-12	St. Louis, MO-IL	29	6
San Diego-Chula Vista-Carlsbad, CA	5	-8	Detroit-Warren-Dearborn, MI	30	6
Springfield, MA	6	-6	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	31	6
Memphis, TN-MS-AR	7	-4	Stockton, CA	32	7
Minneapolis-St. Paul-Bloomington, MN-WI	8	-3	Las Vegas-Henderson-Paradise, NV	33	8
Worcester, MA-CT	9	-3	Kansas City, MO-KS	34	8
Milwaukee-Waukesha, WI	10	-2	Dayton-Kettering, OH	35	8
Denver-Aurora-Lakewood, CO	11	0	Riverside-San Bernardino-Ontario, CA	36	8
Sacramento-Roseville-Folsom, CA	12	0	Grand Rapids-Kentwood, MI	37	8
Washington-Arlington-Alexandria, DC-VA-MD-WV	13	0	Colorado Springs, CO	38	8
Bakersfield, CA	14	1	Toledo, OH	39	8
Madison, WI	15	1	Harrisburg-Carlisle, PA	40	8
Baltimore-Columbia-Towson, MD	16	1	Fresno, CA	41	9
Portland-Vancouver-Hillsboro, OR-WA	17	2	Cleveland-Elyria, OH	42	9
Boston-Cambridge-Newton, MA-NH	18	2	Allentown-Bethlehem-Easton, PA-NJ	43	9
Seattle-Tacoma-Bellevue, WA	19	2	Miami-Fort Lauderdale-Pompano Beach, FL	44	9
Hartford-East Hartford-Middletown, CT	20	3	Wichita, KS	45	10
Omaha-Council Bluffs, NE-IA	21	3	Virginia Beach-Norfolk-Newport News, VA-NC	46	10
Akron, OH	22	4	Albuquerque, NM	47	10
Pittsburgh, PA	23	5	Albany-Schenectady-Troy, NY	48	10
Providence-Warwick, RI-MA	24	5	Tucson, AZ	49	10
Chicago-Naperville-Elgin, IL-IN-WI	25	5	Des Moines-West Des Moines, IA	50	11

VMT PERCENT CHANGE

-20% to 0%	1% to 20%	21% to 40%	41% or more
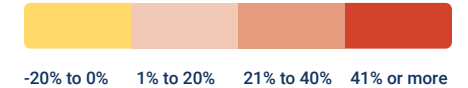
NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

Only six metros kept VMT down by over 5% compared to 2019.

Numbers are rounded for simplicity.
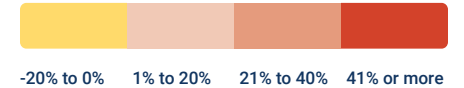*Color coding of ranking reflects rounding.*

BOTTOM 50 U.S. METROS RANKED BY VMT % CHANGE
% Change in Avg. Daily VMT Spring '19 - Spring '24

↓50

	Rank	% Change		Rank	% Change
New Orleans-Metairie, LA	51	11	Winston-Salem, NC	76	21
Richmond, VA	52	12	Baton Rouge, LA	77	21
Orlando-Kissimmee-Sanford, FL	53	12	Ogden-Clearfield, UT	78	21
Syracuse, NY	54	12	Greensboro-High Point, NC	79	23
Scranton--Wilkes-Barre, PA	55	12	Deltona-Daytona Beach-Ormond Beach, FL	80	23
Indianapolis-Carmel-Anderson, IN	56	13	Oklahoma City, OK	81	24
Poughkeepsie-Newburgh-Middletown, NY	57	13	Charleston-North Charleston, SC	82	24
Chattanooga, TN-GA	58	14	Buffalo-Cheektowaga, NY	83	24
New York-Newark-Jersey City, NY-NJ-PA	59	14	Austin-Round Rock-Georgetown, TX	84	24
Cincinnati, OH-KY-IN	60	14	Tampa-St. Petersburg-Clearwater, FL	85	24
Phoenix-Mesa-Chandler, AZ	61	15	Jacksonville, FL	86	24
Columbus, OH	62	16	Dallas-Fort Worth-Arlington, TX	87	25
Atlanta-Sandy Springs-Alpharetta, GA	63	17	Tulsa, OK	88	25
Greenville-Anderson, SC	64	17	Durham-Chapel Hill, NC	89	25
Columbia, SC	65	18	San Antonio-New Braunfels, TX	90	26
Louisville/Jefferson County, KY-IN	66	19	Raleigh-Cary, NC	91	27
Little Rock-North Little Rock-Conway, AR	67	19	Palm Bay-Melbourne-Titusville, FL	92	27
Spokane-Spokane Valley, WA	68	19	North Port-Sarasota-Bradenton, FL	93	31
Jackson, MS	69	20	Provo-Orem, UT	94	33
Birmingham-Hoover, AL	70	20	Knoxville, TN	95	33
Salt Lake City, UT	71	20	Lakeland-Winter Haven, FL	96	37
Houston-The Woodlands-Sugar Land, TX	72	20	Cape Coral-Fort Myers, FL	97	40
Nashville-Davidson--Murfreesboro--Franklin, TN	73	20	El Paso, TX	98	42
Augusta-Richmond County, GA-SC	74	21	Boise City, ID	99	58
Charlotte-Concord-Gastonia, NC-SC	75	21	McAllen-Edinburg-Mission, TX	100	68

VMT PERCENT CHANGE

-20% to 0%	1% to 20%	21% to 40%	41% or more

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

Twenty-seven metros have seen VMT rise by more than 20% since 2019.

Numbers are rounded for simplicity.
Color coding of ranking reflects rounding.

TOP 50 U.S. METROS RANKED BY VMT PER CAPITA
Spring '24

↑50

	Rank	VMT/ Capita		Rank	VMT/ Capita
New York-Newark-Jersey City, NY-NJ-PA	1	17	Washington-Arlington-Alexandria, DC-VA-MD-WV	26	22
Buffalo-Cheektowaga, NY	2	18	Virginia Beach-Norfolk-Newport News, VA-NC	27	22
Portland-Vancouver-Hillsboro, OR-WA	3	18	Albuquerque, NM	28	22
Spokane-Spokane Valley, WA	4	18	Cleveland-Elyria, OH	29	22
Oxnard-Thousand Oaks-Ventura, CA	5	19	Miami-Fort Lauderdale-Pompano Beach, FL	30	22
San Francisco-Oakland-Berkeley, CA	6	19	Fresno, CA	31	22
San Jose-Sunnyvale-Santa Clara, CA	7	19	Syracuse, NY	32	22
McAllen-Edinburg-Mission, TX	8	19	Ogden-Clearfield, UT	33	22
Rochester, NY	9	19	Scranton--Wilkes-Barre, PA	34	22
Seattle-Tacoma-Bellevue, WA	10	20	Minneapolis-St. Paul-Bloomington, MN-WI	35	22
Tucson, AZ	11	20	Wichita, KS	36	23
Los Angeles-Long Beach-Anaheim, CA	12	20	Albany-Schenectady-Troy, NY	37	23
Colorado Springs, CO	13	20	San Diego-Chula Vista-Carlsbad, CA	38	23
Boise City, ID	14	20	Bridgeport-Stamford-Norwalk, CT	39	23
Chicago-Naperville-Elgin, IL-IN-WI	15	20	Dayton-Kettering, OH	40	23
Springfield, MA	16	21	Tampa-St. Petersburg-Clearwater, FL	41	24
Milwaukee-Waukesha, WI	17	21	Salt Lake City, UT	42	24
El Paso, TX	18	21	Denver-Aurora-Lakewood, CO	43	24
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	19	21	Grand Rapids-Kentwood, MI	44	24
Providence-Warwick, RI-MA	20	21	New Haven-Milford, CT	45	24
Pittsburgh, PA	21	21	New Orleans-Metairie, LA	46	24
Las Vegas-Henderson-Paradise, NV	22	21	Baltimore-Columbia-Towson, MD	47	24
Sacramento-Roseville-Folsom, CA	23	21	Omaha-Council Bluffs, NE-IA	48	24
Detroit-Warren-Dearborn, MI	24	22	Phoenix-Mesa-Chandler, AZ	49	24
Boston-Cambridge-Newton, MA-NH	25	22	Palm Bay-Melbourne-Titusville, FL	50	24

VMT PER CAPITA

15 to 21 | 22 to 28 | 29 to 35

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

The best-performing metros for VMT per capita are concentrated in the northeast, northwest, and California.

Numbers are rounded for simplicity. Color coding of ranking reflects rounding.

StreetLight normalizes for population based on the 2020 Census.

BOTTOM 50 U.S. METROS RANKED BY VMT PER CAPITA
Spring '24

↓50

	Rank	VMT/Capita		Rank	VMT/Capita
Allentown-Bethlehem-Easton, PA-NJ	51	24	Greenville-Anderson, SC	76	28
St. Louis, MO-IL	52	25	Harrisburg-Carlisle, PA	77	28
Augusta-Richmond County, GA-SC	53	25	Charleston-North Charleston, SC	78	28
Cincinnati, OH-KY-IN	54	25	Baton Rouge, LA	79	28
Provo-Orem, UT	55	25	Indianapolis-Carmel-Anderson, IN	80	28
Cape Coral-Fort Myers, FL	56	25	Winston-Salem, NC	81	28
Toledo, OH	57	26	San Antonio-New Braunfels, TX	82	28
North Port-Sarasota-Bradenton, FL	58	26	Lakeland-Winter Haven, FL	83	28
Columbus, OH	59	26	Jacksonville, FL	84	28
Houston-The Woodlands-Sugar Land, TX	60	26	Greensboro-High Point, NC	85	29
Kansas City, MO-KS	61	26	Charlotte-Concord-Gastonia, NC-SC	86	29
Akron, OH	62	26	Dallas-Fort Worth-Arlington, TX	87	29
Worcester, MA-CT	63	26	Oklahoma City, OK	88	29
Madison, WI	64	26	Deltona-Daytona Beach-Ormond Beach, FL	89	29
Hartford-East Hartford-Middletown, CT	65	27	Durham-Chapel Hill, NC	90	29
Stockton, CA	66	27	Richmond, VA	91	30
Riverside-San Bernardino-Ontario, CA	67	27	Austin-Round Rock-Georgetown, TX	92	30
Memphis, TN-MS-AR	68	27	Little Rock-North Little Rock-Conway, AR	93	30
Louisville/Jefferson County, KY-IN	69	27	Orlando-Kissimmee-Sanford, FL	94	31
Poughkeepsie-Newburgh-Middletown, NY	70	27	Columbia, SC	95	31
Bakersfield, CA	71	27	Chattanooga, TN-GA	96	31
Raleigh-Cary, NC	72	27	Knoxville, TN	97	31
Des Moines-West Des Moines, IA	73	27	Jackson, MS	98	32
Tulsa, OK	74	27	Birmingham-Hoover, AL	99	32
Atlanta-Sandy Springs-Alpharetta, GA	75	28	Nashville-Davidson--Murfreesboro--Franklin, TN	100	34

VMT PER CAPITA

15 to 21	22 to 28	29 to 35

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

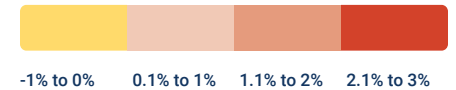The worst-performing metro sees twice the daily VMT per capita as the best-performing metro.

Numbers are rounded for simplicity. Color coding of ranking reflects rounding.

StreetLight normalizes for population based on the 2020 Census.

TOP 50 U.S. METROS RANKED BY CONGESTION % CHANGE
Spring '24

↑50

	Rank	% Change		Rank	% Change
San Francisco-Oakland-Berkeley, CA	1	-0.4	Pittsburgh, PA	26	1
Albuquerque, NM	2	-0.3	Tulsa, OK	27	1
Los Angeles-Long Beach-Anaheim, CA	3	0	Dayton-Kettering, OH	28	1
Memphis, TN-MS-AR	4	0	Deltona-Daytona Beach-Ormond Beach, FL	29	1
Birmingham-Hoover, AL	5	0	Washington-Arlington-Alexandria, DC-VA-MD-WV	30	1.1
Omaha-Council Bluffs, NE-IA	6	0	Atlanta-Sandy Springs-Alpharetta, GA	31	1.1
Minneapolis-St. Paul-Bloomington, MN-WI	7	0.1	Detroit-Warren-Dearborn, MI	32	1.1
San Jose-Sunnyvale-Santa Clara, CA	8	0.1	Orlando-Kissimmee-Sanford, FL	33	1.1
St. Louis, MO-IL	9	0.3	Cincinnati, OH-KY-IN	34	1.1
Salt Lake City, UT	10	0.3	Grand Rapids-Kentwood, MI	35	1.1
San Diego-Chula Vista-Carlsbad, CA	11	0.4	Sacramento-Roseville-Folsom, CA	36	1.2
Tucson, AZ	12	0.4	Jacksonville, FL	37	1.2
Ogden-Clearfield, UT	13	0.4	New Orleans-Metairie, LA	38	1.2
Wichita, KS	14	0.4	McAllen-Edinburg-Mission, TX	39	1.2
Bakersfield, CA	15	0.5	Des Moines-West Des Moines, IA	40	1.2
Kansas City, MO-KS	16	0.6	Jackson, MS	41	1.2
Oxnard-Thousand Oaks-Ventura, CA	17	0.6	Portland-Vancouver-Hillsboro, OR-WA	42	1.3
Winston-Salem, NC	18	0.6	Fresno, CA	43	1.3
Phoenix-Mesa-Chandler, AZ	19	0.7	Columbia, SC	44	1.3
Tampa-St. Petersburg-Clearwater, FL	20	0.7	Greensboro-High Point, NC	45	1.3
Augusta-Richmond County, GA-SC	21	0.7	Madison, WI	46	1.3
Greenville-Anderson, SC	22	0.8	Palm Bay-Melbourne-Titusville, FL	47	1.3
Colorado Springs, CO	23	0.9	Houston-The Woodlands-Sugar Land, TX	48	1.4
Little Rock-North Little Rock-Conway, AR	24	0.9	Miami-Fort Lauderdale-Pompano Beach, FL	49	1.4
Chattanooga, TN-GA	25	0.9	Seattle-Tacoma-Bellevue, WA	50	1.4

CONGESTION PERCENT CHANGE

| -1% to 0% | 0.1% to 1% | 1.1% to 2% | 2.1% to 3% |

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

Congestion is incredibly stubborn. Only two metros have reduced congestion, and by less than half a percentage point.

BOTTOM 50 U.S. METROS RANKED BY CONGESTION % CHANGE
Spring '24

↓50

Metro	Rank	% Change
Charlotte-Concord-Gastonia, NC-SC	51	1.4
Cleveland-Elyria, OH	52	1.4
Milwaukee-Waukesha, WI	53	1.4
Oklahoma City, OK	54	1.4
Akron, OH	55	1.4
Springfield, MA	56	1.4
Toledo, OH	57	1.4
Dallas-Fort Worth-Arlington, TX	58	1.5
Denver-Aurora-Lakewood, CO	59	1.5
Baltimore-Columbia-Towson, MD	60	1.5
San Antonio-New Braunfels, TX	61	1.5
Nashville-Davidson--Murfreesboro--Franklin, TN	62	1.5
Virginia Beach-Norfolk-Newport News, VA-NC	63	1.5
Louisville/Jefferson County, KY-IN	64	1.5
Boston-Cambridge-Newton, MA-NH	65	1.6
Baton Rouge, LA	66	1.6
Stockton, CA	67	1.6
Harrisburg-Carlisle, PA	68	1.6
Chicago-Naperville-Elgin, IL-IN-WI	69	1.7
Columbus, OH	70	1.7
Indianapolis-Carmel-Anderson, IN	71	1.7
Knoxville, TN	72	1.7
Riverside-San Bernardino-Ontario, CA	73	1.8
Richmond, VA	74	1.8
Austin-Round Rock-Georgetown, TX	75	1.9

Metro	Rank	% Change
Raleigh-Cary, NC	76	1.9
Charleston-North Charleston, SC	77	1.9
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	78	2
Las Vegas-Henderson-Paradise, NV	79	2
Hartford-East Hartford-Middletown, CT	80	2
Rochester, NY	81	2
El Paso, TX	82	2
Durham-Chapel Hill, NC	83	2
Spokane-Spokane Valley, WA	84	2
Providence-Warwick, RI-MA	85	2.1
Worcester, MA-CT	86	2.1
Provo-Orem, UT	87	2.1
New York-Newark-Jersey City, NY-NJ-PA	88	2.2
Albany-Schenectady-Troy, NY	89	2.2
Poughkeepsie-Newburgh-Middletown, NY	90	2.2
Scranton--Wilkes-Barre, PA	91	2.3
Allentown-Bethlehem-Easton, PA-NJ	92	2.4
Bridgeport-Stamford-Norwalk, CT	93	2.5
North Port-Sarasota-Bradenton, FL	94	2.5
Syracuse, NY	95	2.5
Lakeland-Winter Haven, FL	96	2.6
New Haven-Milford, CT	97	2.7
Cape Coral-Fort Myers, FL	98	2.7
Buffalo-Cheektowaga, NY	99	2.8
Boise City, ID	100	3

CONGESTION PERCENT CHANGE

| -1% to 0% | 0.1% to 1% | 1.1% to 2% | 2.1% to 3% |
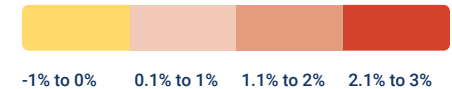
NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

While increases in congestion are relatively small on a percentage basis, they translate to real hours lost, especially in places where congestion is already high.

TOP 50 U.S. METROS RANKED BY CONGESTION
Spring '24

↑50

Metro	Rank	Congestion Factor		Metro	Rank	Congestion Factor
Madison, WI	1	0.168		Harrisburg-Carlisle, PA	26	0.192
Wichita, KS	2	0.169		Columbus, OH	27	0.192
Ogden-Clearfield, UT	3	0.171		Augusta-Richmond County, GA-SC	28	0.193
Des Moines-West Des Moines, IA	4	0.171		Chattanooga, TN-GA	29	0.193
Winston-Salem, NC	5	0.172		Cleveland-Elyria, OH	30	0.193
Greensboro-High Point, NC	6	0.176		Albany-Schenectady-Troy, NY	31	0.193
Little Rock-North Little Rock-Conway, AR	7	0.179		Poughkeepsie-Newburgh-Middletown, NY	32	0.194
Richmond, VA	8	0.179		Knoxville, TN	33	0.195
Toledo, OH	9	0.180		Spokane-Spokane Valley, WA	34	0.195
Tulsa, OK	10	0.182		Provo-Orem, UT	35	0.195
Akron, OH	11	0.182		Worcester, MA-CT	36	0.195
Kansas City, MO-KS	12	0.184		Cincinnati, OH-KY-IN	37	0.197
Minneapolis-St. Paul-Bloomington, MN-WI	13	0.185		Rochester, NY	38	0.197
Birmingham-Hoover, AL	14	0.186		Bakersfield, CA	39	0.200
Dayton-Kettering, OH	15	0.186		Milwaukee-Waukesha, WI	40	0.201
Columbia, SC	16	0.187		Nashville-Davidson--Murfreesboro--Franklin, TN	41	0.201
Durham-Chapel Hill, NC	17	0.187		Raleigh-Cary, NC	42	0.201
Omaha-Council Bluffs, NE-IA	18	0.188		Greenville-Anderson, SC	43	0.203
Grand Rapids-Kentwood, MI	19	0.188		Springfield, MA	44	0.203
Jackson, MS	20	0.188		Scranton--Wilkes-Barre, PA	45	0.203
Syracuse, NY	21	0.189		Charlotte-Concord-Gastonia, NC-SC	46	0.204
Deltona-Daytona Beach-Ormond Beach, FL	22	0.190		Virginia Beach-Norfolk-Newport News, VA-NC	47	0.204
Oklahoma City, OK	23	0.190		Jacksonville, FL	48	0.205
St. Louis, MO-IL	24	0.191		Indianapolis-Carmel-Anderson, IN	49	0.205
Palm Bay-Melbourne-Titusville, FL	25	0.192		Louisville/Jefferson County, KY-IN	50	0.206

CONGESTION FACTOR*

| 0.150 to 0.199 | 0.200 to 0.249 | 0.250 to 0.300 |

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

Congestion is less pronounced in smaller metros.

Congestion factor is measured as one minus the average observed speed over the free flow speed.

BOTTOM 50 U.S. METROS RANKED BY CONGESTION
Spring '24

↓50

	Rank	Congestion Factor		Rank	Congestion Factor
Salt Lake City, UT	51	0.207	Baltimore-Columbia-Towson, MD	76	0.224
Memphis, TN-MS-AR	52	0.208	Sacramento-Roseville-Folsom, CA	77	0.225
Stockton, CA	53	0.208	Austin-Round Rock-Georgetown, TX	78	0.225
Detroit-Warren-Dearborn, MI	54	0.209	North Port-Sarasota-Bradenton, FL	79	0.225
Hartford-East Hartford-Middletown, CT	55	0.210	El Paso, TX	80	0.227
Albuquerque, NM	56	0.211	San Diego-Chula Vista-Carlsbad, CA	81	0.228
San Antonio-New Braunfels, TX	57	0.211	Portland-Vancouver-Hillsboro, OR-WA	82	0.229
Pittsburgh, PA	58	0.212	Denver-Aurora-Lakewood, CO	83	0.229
Allentown-Bethlehem-Easton, PA-NJ	59	0.212	Riverside-San Bernardino-Ontario, CA	84	0.230
Phoenix-Mesa-Chandler, AZ	60	0.213	Tampa-St. Petersburg-Clearwater, FL	85	0.231
Charleston-North Charleston, SC	61	0.213	Houston-The Woodlands-Sugar Land, TX	86	0.231
Tucson, AZ	62	0.214	Seattle-Tacoma-Bellevue, WA	87	0.233
Oxnard-Thousand Oaks-Ventura, CA	63	0.214	Boston-Cambridge-Newton, MA-NH	88	0.234
Buffalo-Cheektowaga, NY	64	0.214	Washington-Arlington-Alexandria, DC-VA-MD-WV	89	0.235
Baton Rouge, LA	65	0.216	Las Vegas-Henderson-Paradise, NV	90	0.236
Boise City, ID	66	0.216	Cape Coral-Fort Myers, FL	91	0.237
Colorado Springs, CO	67	0.218	Chicago-Naperville-Elgin, IL-IN-WI	92	0.240
Dallas-Fort Worth-Arlington, TX	68	0.218	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	93	0.241
Atlanta-Sandy Springs-Alpharetta, GA	69	0.220	San Francisco-Oakland-Berkeley, CA	94	0.245
Fresno, CA	70	0.220	San Jose-Sunnyvale-Santa Clara, CA	95	0.246
New Haven-Milford, CT	71	0.220	Bridgeport-Stamford-Norwalk, CT	96	0.247
New Orleans-Metairie, LA	72	0.222	McAllen-Edinburg-Mission, TX	97	0.248
Providence-Warwick, RI-MA	73	0.222	New York-Newark-Jersey City, NY-NJ-PA	98	0.265
Lakeland-Winter Haven, FL	74	0.222	Miami-Fort Lauderdale-Pompano Beach, FL	99	0.268
Orlando-Kissimmee-Sanford, FL	75	0.224	Los Angeles-Long Beach-Anaheim, CA	100	0.269

CONGESTION FACTOR*

0.150 to 0.199   0.200 to 0.249   0.250 to 0.300

NUMBER INSIDE EACH CELL INDICATES THE METRO'S NATIONAL RANK

11

TAKEAWAY:

The worst congestion is concentrated in many of the most populated metros, places where limiting VMT will be critical to reigning in traffic.

Congestion factor is measured as one minus the average observed speed over the free flow speed.

Get access to VMT and other metrics to drive down congestion in **your city**.

Did you know you can use our StreetLight InSight® software to go deeper for virtually any geography?

We used metro-wide VMT and Congestion Factor metrics for this report, but StreetLight InSight® helps you access more granular metrics, including segment-level VMT, volumes, and speeds, origin-destination patterns, intersection activity, demographics, and more, all in one place.

SEE HOW IT WORKS

StreetLight for Congestion Management

Louisville, KY Example
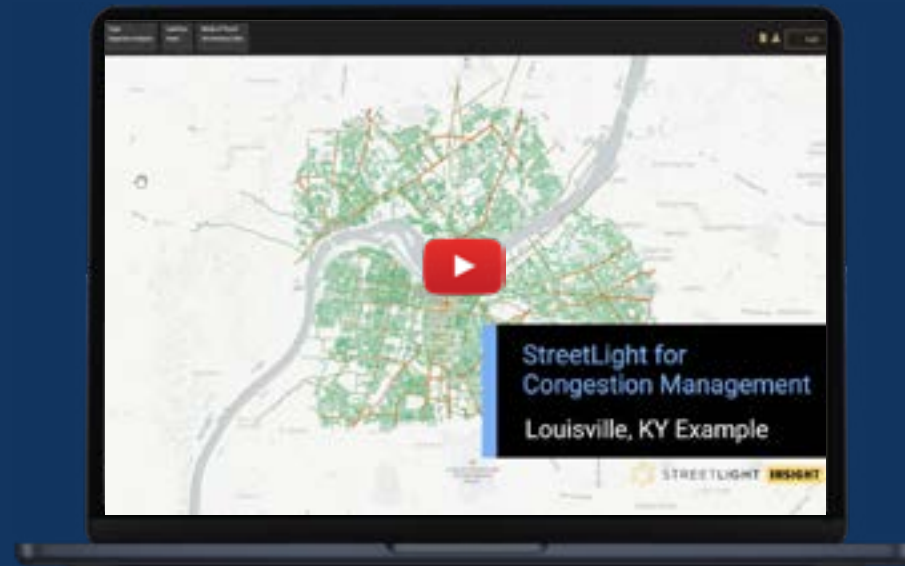
WHAT IS STREETLIGHT INSIGHT®?

It's self-serve software that lets users ask mobility questions and get the answers within minutes. Access traffic metrics for any road, without sensors. From VMT to VHD, vehicle volumes, and commercial truck metrics, **point and click** your way to the data you need to measure and mitigate congestion.
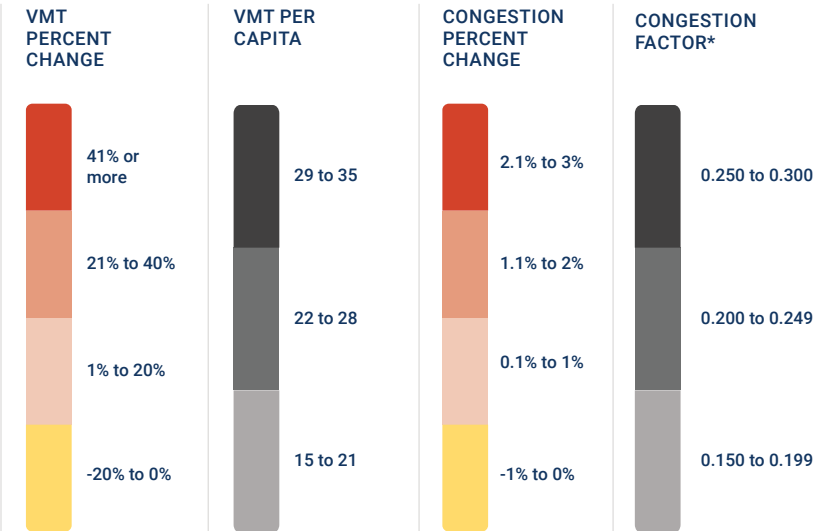
Learn more at **streetlightdata.com/congestion-management-solution**

streetlightdata.com/congestion-management-solution

TOP 100 METROS INDEX | FULL RESULTS TABLE

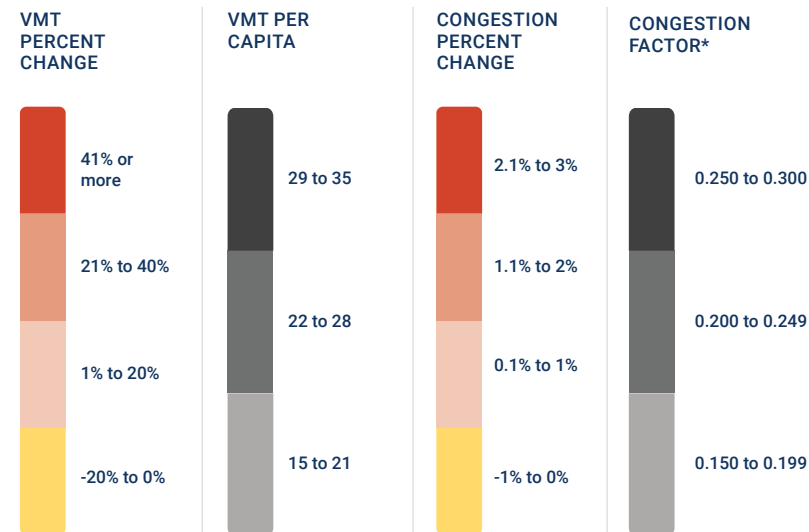## TOP 100 METROS ORDERED BY POPULATION | FULL RESULTS TABLE

	VMT % Change	Daily VMT/ Capita	Congestion % Change	Congestion Factor
New York-Newark-Jersey City, NY-NJ-PA	14	17	2.2	0.265
Los Angeles-Long Beach-Anaheim, CA	-17	20	0	0.269
Chicago-Naperville-Elgin, IL-IN-WI	5	20	1.7	0.24
Dallas-Fort Worth-Arlington, TX	25	29	1.5	0.218
Houston-The Woodlands-Sugar Land, TX	20	26	1.4	0.231
Washington-Arlington-Alexandria, DC-VA-MD-WV	0	22	1.1	0.235
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6	21	2	0.241
Miami-Fort Lauderdale-Pompano Beach, FL	9	22	1.4	0.268
Atlanta-Sandy Springs-Alpharetta, GA	17	28	1.1	0.22
Boston-Cambridge-Newton, MA-NH	2	22	1.6	0.234
Phoenix-Mesa-Chandler, AZ	15	24	0.7	0.213
San Francisco-Oakland-Berkeley, CA	-13	19	-0.4	0.245
Riverside-San Bernardino-Ontario, CA	8	27	1.8	0.23
Detroit-Warren-Dearborn, MI	6	22	1.1	0.209
Seattle-Tacoma-Bellevue, WA	2	20	1.4	0.233
Minneapolis-St. Paul-Bloomington, MN-WI	-3	22	0.1	0.185
San Diego-Chula Vista-Carlsbad, CA	-8	23	0.4	0.228
Tampa-St. Petersburg-Clearwater, FL	24	24	0.7	0.231
Denver-Aurora-Lakewood, CO	0	24	1.5	0.229
Baltimore-Columbia-Towson, MD	1	24	1.5	0.224
St. Louis, MO-IL	6	25	0.3	0.191
Orlando-Kissimmee-Sanford, FL	12	31	1.1	0.224
Charlotte-Concord-Gastonia, NC-SC	21	29	1.4	0.204
San Antonio-New Braunfels, TX	26	28	1.5	0.211
Portland-Vancouver-Hillsboro, OR-WA	2	18	1.3	0.229

VMT PERCENT CHANGE

- 41% or more
- 21% to 40%
- 1% to 20%
- -20% to 0%

VMT PER CAPITA

- 29 to 35
- 22 to 28
- 15 to 21

CONGESTION PERCENT CHANGE

- 2.1% to 3%
- 1.1% to 2%
- 0.1% to 1%
- -1% to 0%

CONGESTION FACTOR*

- 0.250 to 0.300
- 0.200 to 0.249
- 0.150 to 0.199

*Congestion factor is measured as one minus the average observed speed over the free flow speed. StreetLight normalizes for population based on the 2020 Census.

Numbers are rounded for simplicity. Color coding of ranking reflects rounding.

TOP 100 METROS ORDERED BY POPULATION | FULL RESULTS TABLE

	VMT % Change	Daily VMT/ Capita	Congestion % Change	Congestion Factor
Sacramento-Roseville-Folsom, CA	0	21	1.2	0.225
Pittsburgh, PA	5	21	1	0.212
Austin-Round Rock-Georgetown, TX	24	30	1.9	0.225
Las Vegas-Henderson-Paradise, NV	8	21	2	0.236
Cincinnati, OH-KY-IN	14	25	1.1	0.197
Kansas City, MO-KS	8	26	0.6	0.184
Columbus, OH	16	26	1.7	0.192
Indianapolis-Carmel-Anderson, IN	13	28	1.7	0.205
Cleveland-Elyria, OH	9	22	1.4	0.193
San Jose-Sunnyvale-Santa Clara, CA	-12	19	0.1	0.246
Nashville-Davidson--Murfreesboro--Franklin, TN	20	34	1.5	0.201
Virginia Beach-Norfolk-Newport News, VA-NC	10	22	1.5	0.204
Providence-Warwick, RI-MA	5	21	2.1	0.222
Jacksonville, FL	24	28	1.2	0.205
Milwaukee-Waukesha, WI	-2	21	1.4	0.201
Oklahoma City, OK	24	29	1.4	0.19
Raleigh-Cary, NC	27	27	1.9	0.201
Memphis, TN-MS-AR	-4	27	0	0.208
Richmond, VA	12	30	1.8	0.179
Louisville/Jefferson County, KY-IN	19	27	1.5	0.206
New Orleans-Metairie, LA	11	24	1.2	0.222
Salt Lake City, UT	20	24	0.3	0.207
Hartford-East Hartford-Middletown, CT	3	27	2	0.21
Buffalo-Cheektowaga, NY	24	18	2.8	0.214
Birmingham-Hoover, AL	20	32	0	0.186

VMT PERCENT CHANGE

	41% or more
	21% to 40%
	1% to 20%
	-20% to 0%

VMT PER CAPITA

	29 to 35
	22 to 28
	15 to 21

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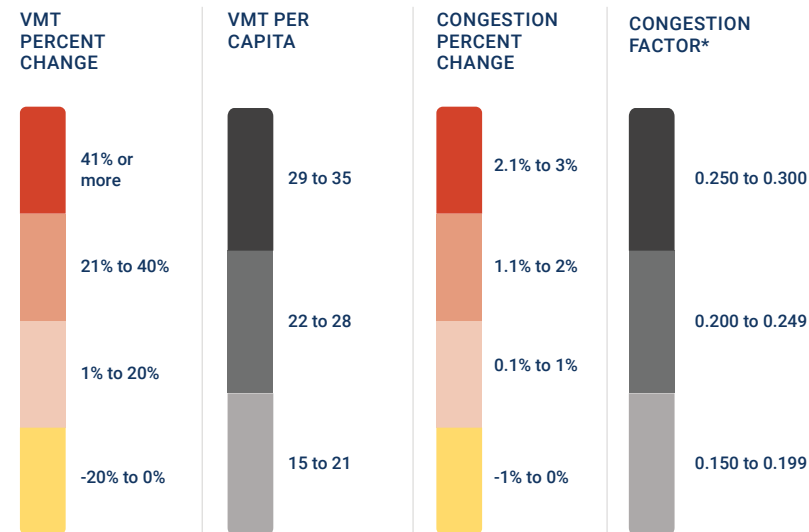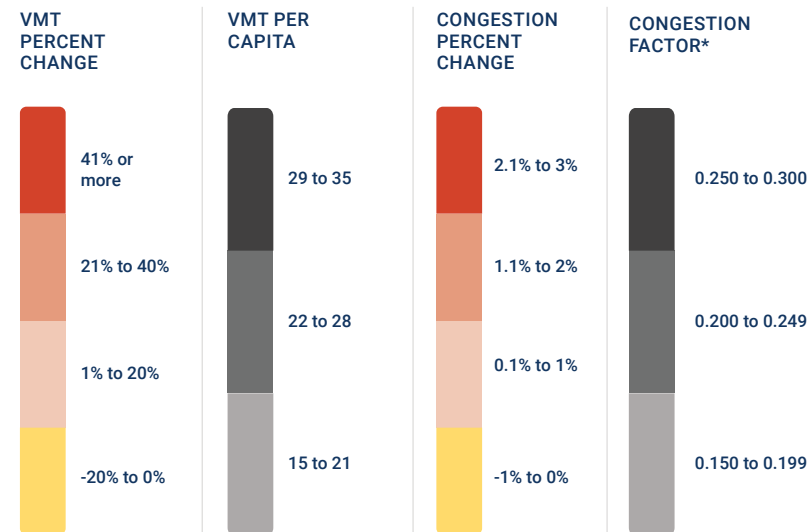## TOP 100 METROS ORDERED BY POPULATION | FULL RESULTS TABLE

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Rochester, NY	6	19	2	0.197
Grand Rapids-Kentwood, MI	8	24	1.1	0.188
Tucson, AZ	10	20	0.4	0.214
Tulsa, OK	25	27	1	0.182
Fresno, CA	9	22	1.3	0.22
Worcester, MA-CT	-3	26	2.1	0.195
Omaha-Council Bluffs, NE-IA	3	24	0	0.188
Bridgeport-Stamford-Norwalk, CT	5	23	2.5	0.247
Greenville-Anderson, SC	17	28	0.8	0.203
Albuquerque, NM	10	22	-0.3	0.211
Albany-Schenectady-Troy, NY	10	23	2.2	0.193
Bakersfield, CA	1	27	0.5	0.2
Knoxville, TN	33	31	1.7	0.195
McAllen-Edinburg-Mission, TX	68	19	1.2	0.248
El Paso, TX	42	21	2	0.227
New Haven-Milford, CT	5	24	2.7	0.22
Baton Rouge, LA	21	28	1.6	0.216
Allentown-Bethlehem-Easton, PA-NJ	9	24	2.4	0.212
Oxnard-Thousand Oaks-Ventura, CA	-16	19	0.6	0.214
North Port-Sarasota-Bradenton, FL	31	26	2.5	0.225
Columbia, SC	18	31	1.3	0.187
Dayton-Kettering, OH	8	23	1	0.186
Charleston-North Charleston, SC	24	28	1.9	0.213
Greensboro-High Point, NC	23	29	1.3	0.176
Stockton, CA	7	27	1.6	0.208

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Cape Coral-Fort Myers, FL	40	25	2.7	0.237
Boise City, ID	58	20	3	0.216
Colorado Springs, CO	8	20	0.9	0.218
Little Rock-North Little Rock-Conway, AR	19	30	0.9	0.179
Lakeland-Winter Haven, FL	37	28	2.6	0.222
Des Moines-West Des Moines, IA	11	27	1.2	0.171
Akron, OH	4	26	1.4	0.182
Springfield, MA	-6	21	1.4	0.203
Ogden-Clearfield, UT	21	22	0.4	0.171
Poughkeepsie-Newburgh-Middletown, NY	13	27	2.2	0.194
Madison, WI	1	26	1.3	0.168
Winston-Salem, NC	21	28	0.6	0.172
Provo-Orem, UT	33	25	2.1	0.195
Deltona-Daytona Beach-Ormond Beach, FL	23	29	1	0.19
Syracuse, NY	12	22	2.5	0.189
Toledo, OH	8	26	1.4	0.18
Durham-Chapel Hill, NC	25	29	2	0.187
Wichita, KS	10	23	0.4	0.169
Augusta-Richmond County, GA-SC	21	25	0.7	0.193
Palm Bay-Melbourne-Titusville, FL	27	24	1.3	0.192
Harrisburg-Carlisle, PA	8	28	1.6	0.192
Spokane-Spokane Valley, WA	19	18	2	0.195
Jackson, MS	20	32	1.2	0.188
Scranton--Wilkes-Barre, PA	12	22	2.3	0.203
Chattanooga, TN-GA	14	31	0.9	0.193

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METHODOLOGY

This analysis includes all vehicle segment-level travel within the geographic zone on segments that are at least 50 meters, including all residential roadways and excluding service roads. National data includes VMT in all CBSAs across the continental U.S., covering nearly all of the populated lower 48. The top 100 metros are identified based on population size and include the full CBSA, used interchangeably with the term "metro." To measure downtowns, StreetLight analyzes census tracts labeled as "urban core" based on the density of their roadway networks. Congestion factor is measured as one minus the average observed speed over the free flow speed. StreetLight normalizes for population based on the 2020 Census.

ABOUT STREETLIGHT

StreetLight Data, Inc. ("StreetLight") pioneered the use of Big Data analytics to shed light on how people, goods, and services move, empowering smarter, data-driven transportation decisions. The company applies proprietary machine-learning algorithms and its vast data processing resources to measure travel patterns of vehicles, bicycles and pedestrians, accessible as analytics on the StreetLight InSight® SaaS platform. Acquired by Jacobs as a wholly owned subsidiary in February 2022, StreetLight provides innovative digital solutions to help communities reduce congestion, improve safe and equitable transportation, and maximize the positive impact of infrastructure investment.

STREETLIGHT