# 2026 Traffic Signals Scorecard

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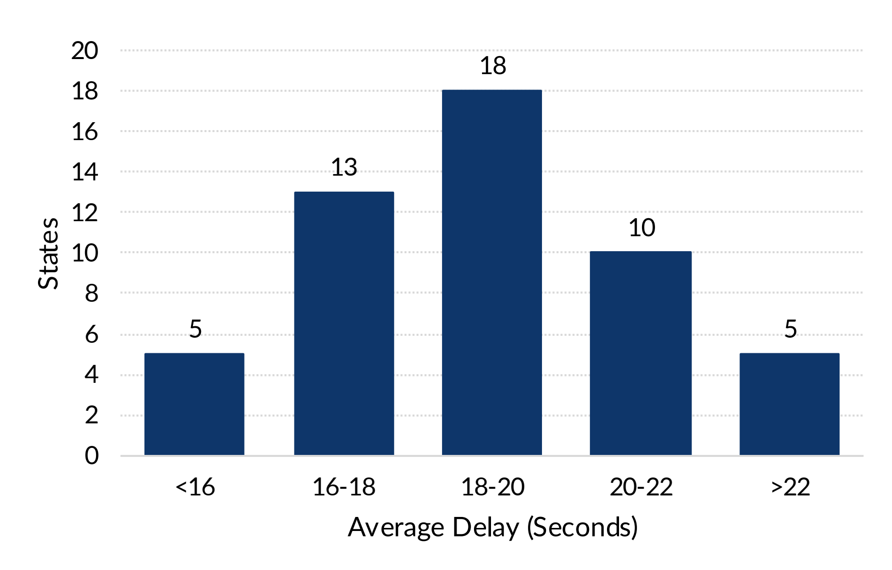
# INTRODUCTION

The 2026 Signals Scorecard builds upon past INRIX Signals Scorecard reports, revealing data and trends across more than 275,000 signalized intersections, the largest study of its kind. The report simplifies detailed and in-depth mobility data from more than 10.6 billion actual, observed crossings, providing important performance metrics like all day and peak hour delays, arrival on green (AOG), split failure frequency, and level of service (LOS). The Scorecard findings can help transportation professionals, safety experts, and the public gain a better understanding of how the movement of people and goods flow through a transportation network.

Average delay was fairly evenly distributed across states, though eight of the top 10 states for delay are on the coasts, including Texas. Plains and Midwest states tended to have lower than average delays.

**Chart 1: Distribution of States by Average Delay**




## Key Statistics:

- 276,880 signals analyzed
- 10.63B observations
- 20.1 sec average delay
- 684 daily observations per signal
- #1 State: Washington D.C. at 28.8 seconds of delay
- #1 MPO: New Jersey TPA at 42 seconds of delay
- #1 County: Manhattan at 36.5 seconds of delay
- #1 State AOG: **Nebraska at 65%**

Among statewide average delay, the District of Columbia had the most delay of any "state" at 28.8 seconds per signal, likely due to its entirely urban environment, density of signals, and intense travel demand. Nevada rang in at number two on the list, at 23.8 seconds, while Florida takes the third spot at 23.7 seconds. Travelers in Wyoming experience the least delay at the average signal at 12.6 seconds.

At the Metropolitan Planning Organization (MPO) level, signals within the New Jersey Transportation Planning Authority had the most delay, on average. Travelers within that MPO average 42 seconds of delay, a full 12 seconds above the number-two ranked Miami-Dade Transportation Planning Organization at 29.7 seconds. New York's Metropolitan Transportation Council rang in third at 26.6 seconds of delay, on average.

Unsurprisingly, New York County (Manhattan) had the top spot when analyzed by county at 36.5 seconds of peak hour delay, on average. With the highest density of traffic signals in the country, Manhattan, and other New York City counties, also held top spots. Kings County (Brooklyn) and Queens County, were also featured in the top five.

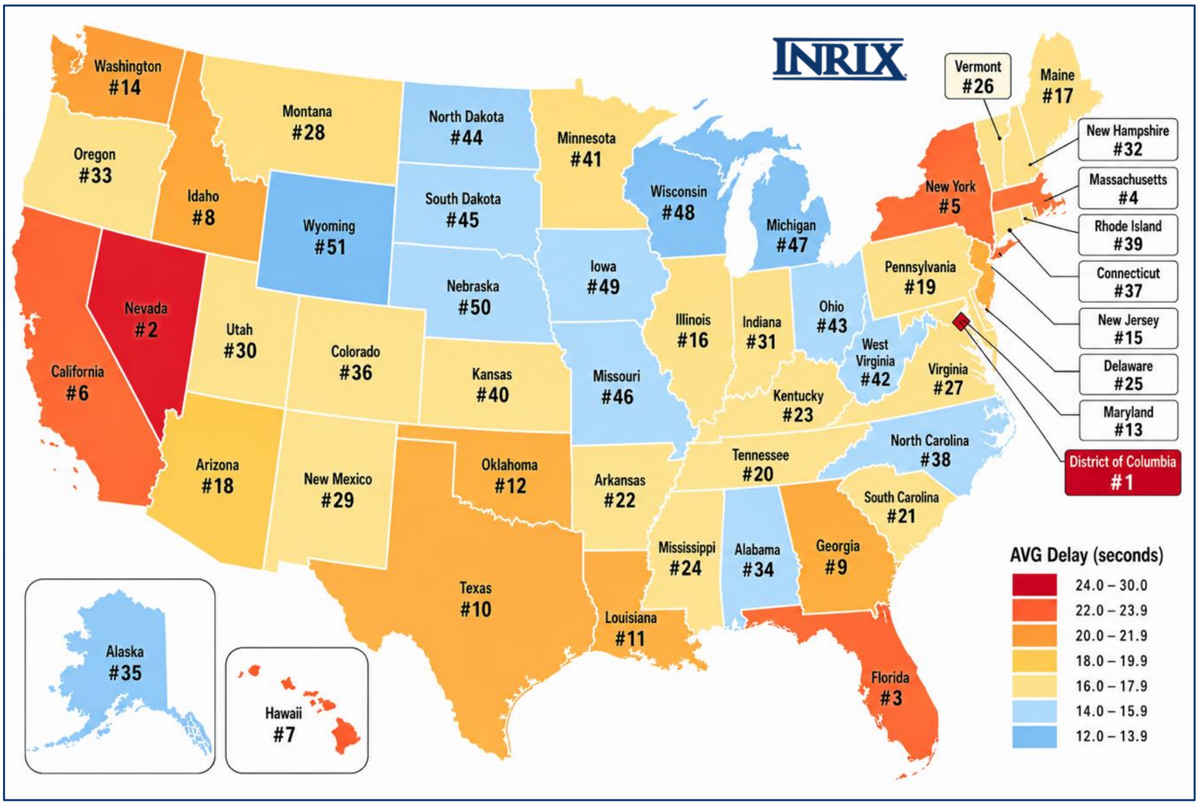
# State Traffic Signal Performance Rankings

## Control Delay

Traffic signals naturally introduce delay onto the transportation network by way of controlling access through an intersection. This is officially called "control delay," which is defined as extra time attributable to a traffic control device. Transportation officials try to strike a balance between delay and traffic throughput with the need to safely manage conflicting vehicle, pedestrian, and bicycle movements.  The goal is to limit delay to the lowest practical amount while maintaining safe, efficient, and orderly intersection operations.

Figure 1 shows each state and its rank based on the average control delay at signals analyzed by INRIX.

**Figure 1: State Rankings of Average Traffic Signal Control Delay**




State rankings vary considerably by geography and density. For example, Washington D.C., counted as a state in this analysis, holds the highest average control delay at 28.8 seconds. Washington D.C. has high population and employment density constrained in a relatively small land area. It is also the center of a major metropolitan area in the country, ultimately leading to significant delay in the capitol.

Yet Nevada, coming in at number two on the list, couldn't be more different geographically. Located in the Mountain West, Nevada is a relative low-density state, with a large population located in the South in Las Vegas. Yet average control delay averages 23.8 seconds, 5.5 seconds below Washington D.C. and 0.1 seconds above Florida's 23.7 seconds.

At the bottom of the list, Wyoming comes in 51$^{st}$ with an average of 12.6 seconds of delay due to signals, 2.6 seconds lower than 50$^{th}$ ranked Nebraska.

In general, coastal states (including Texas) tended to have more traffic delay at signals, mostly due to high traffic volumes, constrained geographies, and complex road interactions. Traffic delays in the Great Plains and Mid West areas tended to be lower with less overall demand on the road network.

## State Traffic Signal Performance Rankings (Cont.)

### Level Of Service Distribution

The Level of Service (LOS) at a signal or intersection is determined by the amount of delay at that intersection or signal. While average delay is good metric for analyzing the overall impact of signals on travel times, the distribution of that delay is critical to understanding if a transportation network is meeting standards. In many municipalities and regions, LOS is the primary metric to whether intersections or signals meet concurrency standards for growth management.

Level of service is graded on an A through F scale, with A representing very little delay and F indicating significant delay. The thresholds used to assign LOS grades are established in the Transportation Research Board's Highway Capacity Manual, the nationally-recognized reference for evaluating roadway and intersection performance.

**Chart 2: Distribution of Intersections by Daily LOS**

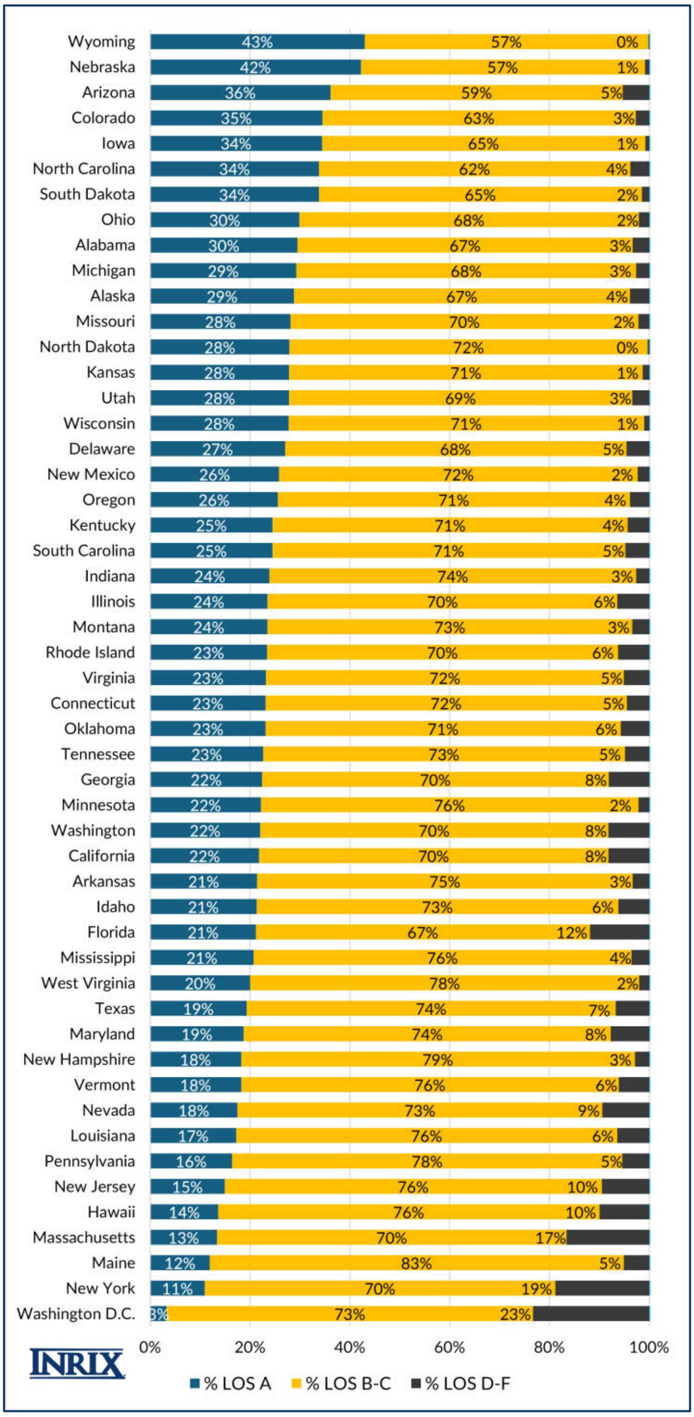
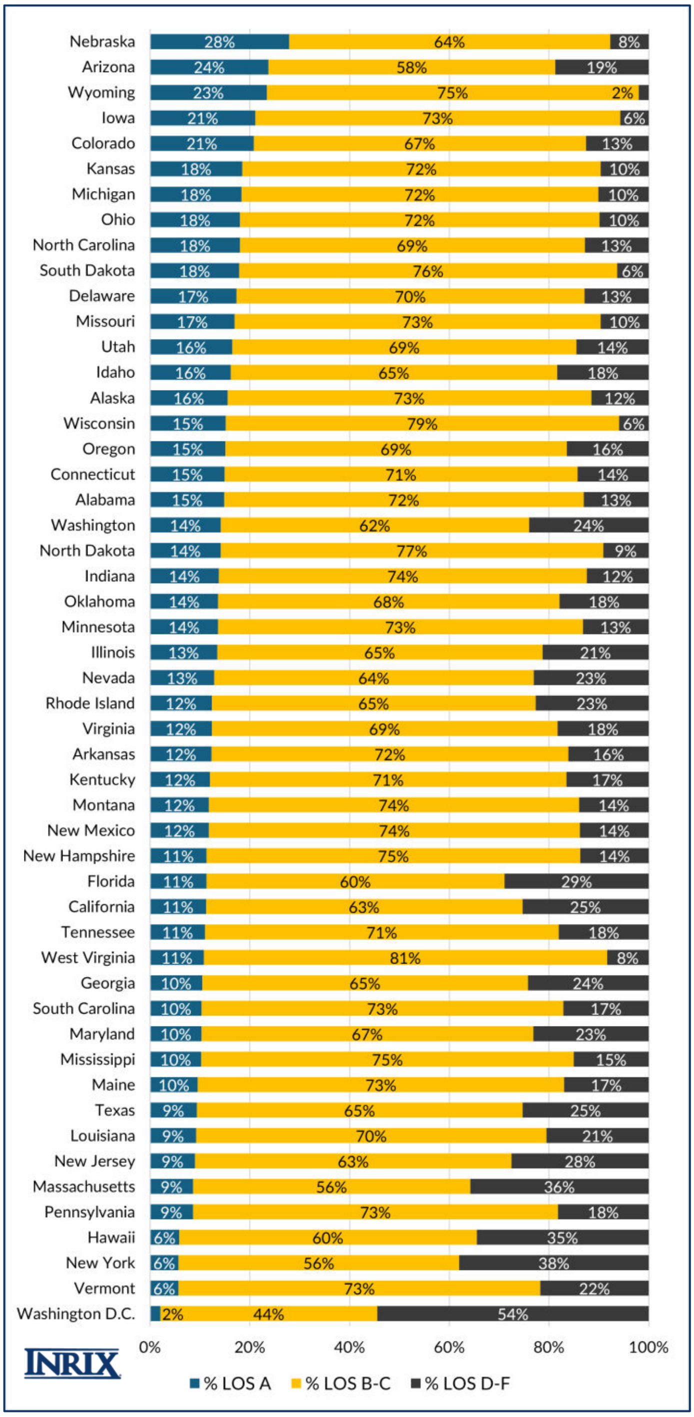



**Chart 3: Distribution of Intersections by Peak Hour LOS**



# State Traffic Signal Performance Rankings (Cont.)

## Level Of Service Distribution (Cont.)

Charts 2 and 3 reveal the varying distribution among states when it comes to LOS at intersections. Distribution is important to consider along with average delays, as it can indicate if delays are concentrated in a relative few signals versus the entire network.

When looking at all day LOS, only the District of Columbia had more than 20% of signals worse than LOS D, and just five other states with more than 10% of signals. Unsurprisingly, examining peak hour delay shows a significant increase in the share of LOS D-F signals on the network.

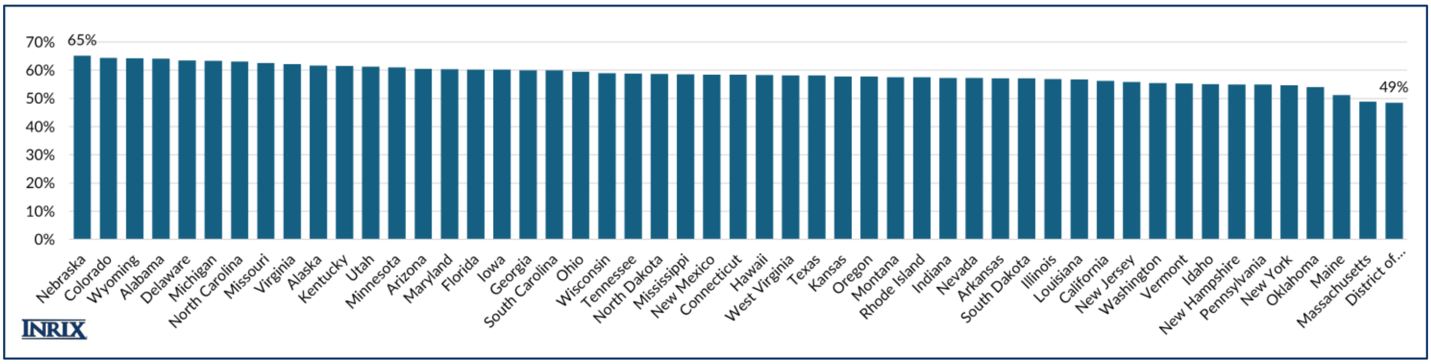
## Arrival on Green

Arrival on green percentage measures the share of vehicles that pass through an intersection without stopping, indicating that they likely arrived while the signal was green. A higher percentage generally reflects better signal coordination and smoother traffic progression, although results can also be influenced by traffic demand, roadway geometry, and signal operations.

Statewide averages range from the District of Columbia, where 49% of observed vehicles arrived on green, to Nebraska, where 65% passed through the intersection without stopping. The breakdown follows:

- **High Coordination / Optimal Flow (62% – 66%+):** This represents the highest tier of municipal performance in the U.S. (e.g., states like Nebraska and Colorado lead the nation with averages around 64%–65%). It indicates highly optimized signal retiming.
- **National Average (58.1%):** The default baseline for a standard, moderately coordinated American intersection.
- **Low Coordination / High Delay (<50%):** Lower-performing regions and dense metro areas (like Boston or Washington D.C.) average under 50% AOG, signifying that more than half of all vehicles are forced to stop.

**Chart 4: Distribution of Arrival on Green Among States (and D.C.)**



# Metropolitan Planning Organization (MPO) Signal Performance

## Intersection Delay

Among the most-populated MPO's in the country, the Miami-Dade TPO leads the pack with an all day average of 29.7 seconds of delay and 38.4 seconds of delay at the peak hour, despite its ranking as the 19th most-populated MPO in the country. New York's Metropolitan Transportation Council quickly follows at 26.58 seconds of delay on average, while the Boston Region MPO comes in third with 25.8 seconds of delay.

Chicago and Pittsburgh's MPO's are among the lowest in terms of all day delay, with 13.2 and 11.7 seconds of delay, respectively.

Atlanta had the largest gap between average all day and peak hour delay, with drivers sitting at intersections 8.2 seconds longer during the peak hour, a 37% increase over the daily average. Signals in the Seattle Region also saw a significant 7.4 second increase at the peak versus the daily average, while Miami had the largest absolute difference, with peak hour delay 8.8 seconds longer than the daily average.

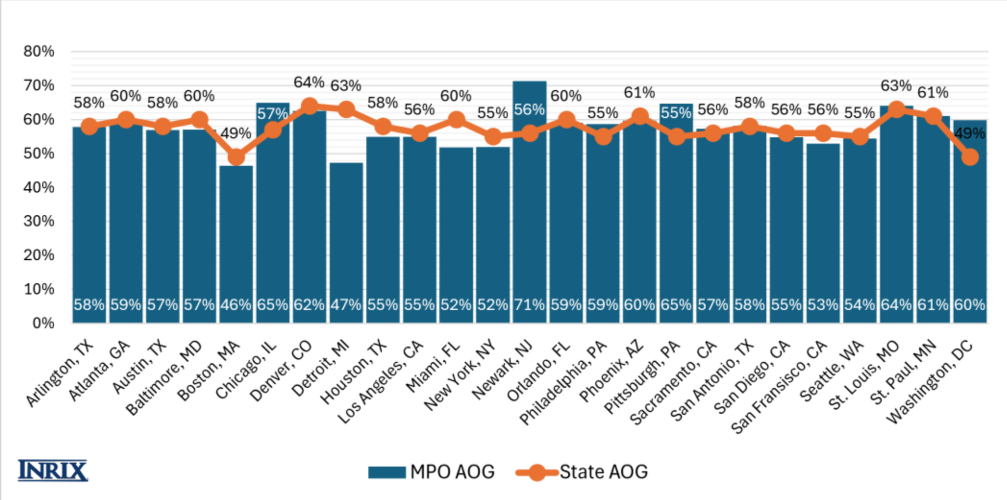
**Table 1: Largest MPO Signalized Average Delay in Seconds**

| Delay Rank | Population Rank | MPO Name | Metro Area | All Day Average | Peak Hour Average |
|---|---|---|---|---|---|
| 1 | 19 | Miami-Dade TPO | Miami, FL | 29.65 | 38.41 |
| 2 | 2 | New York Metropolitan Transportation Council | New York, NY | 26.58 | 31.29 |
| 3 | 14 | Boston Region MPO | Boston, MA | 25.76 | 32.13 |
| 4 | 25 | METROPLAN Orlando | Orlando, FL | 24.53 | 31.24 |
| 5 | 11 | Southeast Michigan COG | Detroit, MI | 23.56 | 24.47 |
| 6 | 6 | Houston-Galveston Area Council | Houston, TX | 22.93 | 30.18 |
| 7 | 4 | Metropolitan Transportation Commission | San Francisco, CA | 22.59 | 28.64 |
| 8 | 10 | Atlanta Regional Commission | Atlanta, GA | 22.29 | 30.52 |
| 9 | 1 | Southern California Association of Governments | Los Angeles, CA | 21.80 | 27.39 |
| 10 | 16 | San Diego Association of Governments | San Diego, CA | 21.64 | 27.53 |
| 11 | 13 | Puget Sound Regional Council | Seattle, WA | 21.62 | 29.00 |
| 12 | 9 | National Capital Region Transportation Planning Board | Washington, DC | 21.28 | 26.73 |
| 13 | 23 | Alamo Area MPO | San Antonio, TX | 21.21 | 27.60 |
| 14 | 18 | Baltimore Regional Transportation Board | Baltimore, MD | 21.07 | 26.92 |
| 15 | 7 | North Jersey Transportation Planning Authority | Newark, NJ | 20.94 | 25.69 |
| 16 | 22 | Sacramento Area COG | Sacramento, CA | 20.37 | 25.59 |
| 17 | 5 | North Central Texas COG | Arlington, TX | 20.34 | 26.52 |
| 18 | 12 | Maricopa Association of Governments | Phoenix, AZ | 19.62 | 23.95 |
| 19 | 15 | Denver Regional COG | Denver, CO | 17.81 | 22.92 |
| 20 | 17 | Metropolitan Council | St. Paul, MN | 17.66 | 23.23 |
| 21 | 24 | Capital Area MPO | Austin, TX | 16.26 | 20.75 |
| 22 | 20 | East-West Gateway Council of Government | St. Louis, MO | 16.22 | 20.16 |
| 23 | 8 | Delaware Valley Regional Planning Commission | Philadelphia, PA | 13.63 | 17.00 |
| 24 | 3 | Chicago Metropolitan Agency for Planning | Chicago, IL | 13.24 | 16.98 |
| 25 | 21 | Southwestern Pennsylvania Commission | Pittsburgh, PA | 11.65 | 15.36 |

# Metropolitan Planning Organization (MPO) Signal Performance (Cont.)

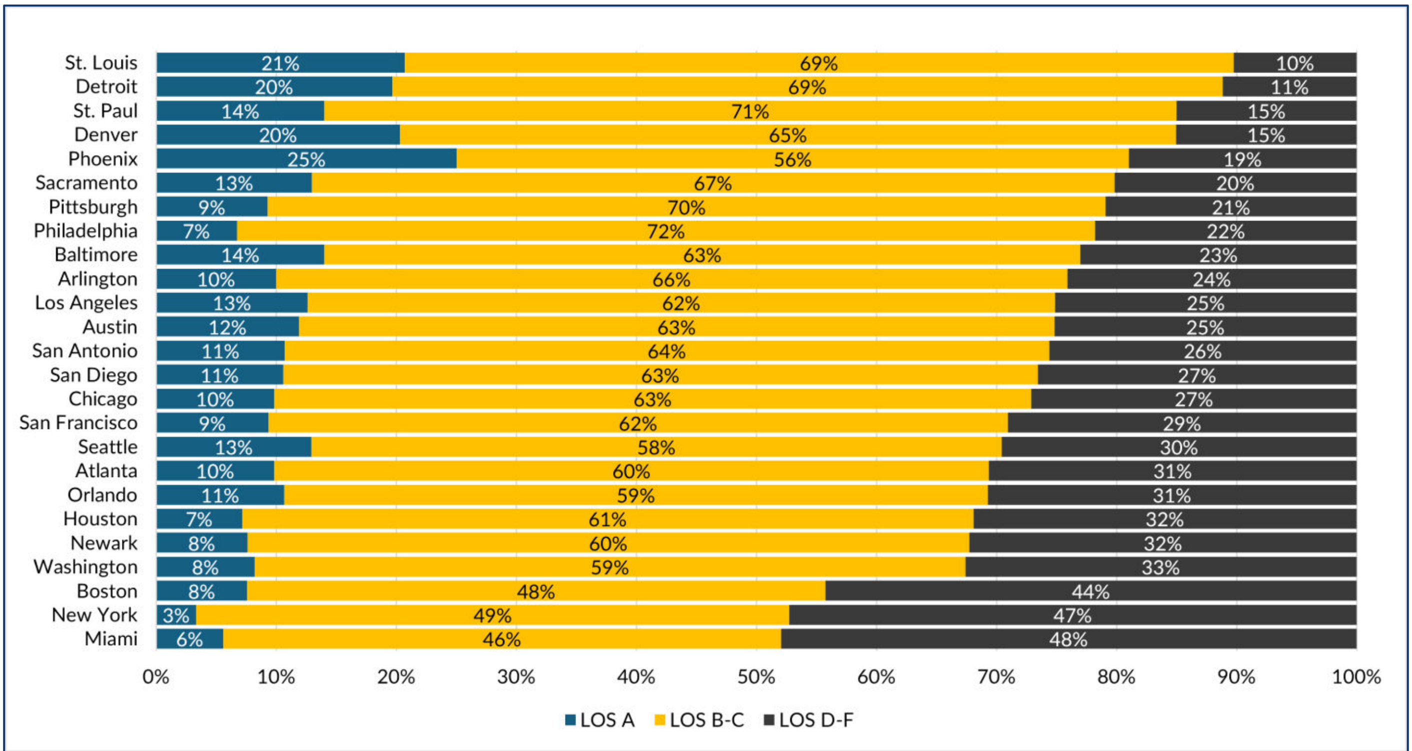
## Arrival on Green & Level of Service

Chart 5: Arrival on Green Comparison: MPO to Statewide AOG Percentage




Though arrival on green percentages were relatively similar among MPO's, their respective LOS distribution varied considerably. For example, ninety percent of intersections within the St. Louis MPO, the East-West Gateway, were LOS C or better, while just 52% located within the Miami-Dade MPO were LOS C or better. In general, intersections residing in the densest MPO's generally had a larger share of LOS. D-F intersections, while those in less-dense areas had a lower share, though that is not always the case. For example, the Los Angeles Urban Area is the most-dense urban area in the country, yet just 25% of signals were LOS D or worse.

Chart 6: Distribution of Peak Hour LOS Intersections within MPO's



# County Traffic Signal Performance Measures

## Delay, Level of Service and AOG

As the geography narrows to denser counties, average delay and therefore LOS, drops considerably. Among the top 25 most-populous counties, three New York City boroughs pierce the top five, as Manhattan (New York), Kings (Brooklyn), and Queens saw some of the most delay. Two Florida counties also made the top five.

In terms of arrival on green, the New York counties also registered 50% or lower along with Middlesex County in Massachusetts. Signalized intersections within Chicago's Cook County just barely exceeded half at 51%.

Though Florida counties on the list showed significant delay, some did exceed 60% in terms of AOG, including Broward County, Hillsborough County and Palm Beach County. Texas counties registered an AOG of between 55%-60%.

**Table 2: Distribution of LOS Intersections within Counties**

| Delay Rank | County | State | Avg Delay | Peak Hour LOS | AOG% |
|---|---|---|---|---|---|
| 1 | New York | New York | 36.5 | D | 50% |
| 2 | Kings | New York | 32.9 | D | 44% |
| 3 | Miami-Dade | Florida | 29.7 | D | 54% |
| 4 | Queens | New York | 29.4 | C | 45% |
| 5 | Broward | Florida | 25.2 | C | 61% |
| 6 | Clark | Nevada | 24.5 | C | 57% |
| 7 | Hillsborough | Florida | 24.5 | C | 60% |
| 8 | Middlesex | Massachusetts | 23.8 | C | 47% |
| 9 | Harris | Texas | 23.7 | C | 55% |
| 10 | Santa Clara | California | 23.6 | C | 56% |
| 11 | Palm Beach | Florida | 23.4 | C | 62% |
| 12 | Los Angeles | California | 23.0 | C | 55% |
| 13 | Cook | Illinois | 23.0 | C | 51% |
| 14 | King | Washington | 22.7 | C | 54% |
| 15 | San Diego | California | 21.6 | C | 58% |
| 16 | San Bernardino | California | 21.5 | C | 54% |
| 17 | Alameda | California | 21.3 | C | 55% |
| 18 | Sacramento | California | 21.3 | C | 58% |
| 19 | Bexar | Texas | 21.0 | C | 59% |
| 20 | Orange | California | 20.9 | C | 61% |
| 21 | Dallas | Texas | 20.5 | C | 58% |
| 22 | Tarrant | Texas | 20.0 | C | 60% |
| 23 | Maricopa | Arizona | 19.7 | C | 61% |
| 24 | Riverside | California | 19.7 | C | 60% |
| 25 | Wayne | Michigan | 15.7 | B | 61% |

# Commute Delay at Signals

## Commute Delay

The largest, single source of traffic volumes at the peak are commuters driving to and from work and school. It is estimated that commuting represents about half of all morning peak period trips and approximately 40% of evening peak period trips. Other trip purposes, like running errands, shopping, social, recreational, fill out the remainder.

Table 3 examines aggregate traffic conditions at the peak hour, assuming five signal crossings per trip. The number of vehicles were derived from the U.S. Census Bureau Table B08301, Means of Transportation to Work.

This conservative number does not count a "return trip" and is a conservative estimate of delay at signals due to a larger commute picture.

**Table 3: Peak Hour Commute Delay by State, in Total Hours**

| State | Peak Hour Delay at Signals | State | Peak Hour Delay at Signals |
|---|---|---|---|
| California | 521,378 | Oklahoma | 56,075 |
| Texas | 450,176 | Oregon | 48,536 |
| Florida | 338,607 | Nevada | 48,100 |
| New York | 184,446 | Utah | 44,102 |
| Georgia | 160,510 | Connecticut | 41,790 |
| Pennsylvania | 158,568 | Arkansas | 39,368 |
| Illinois | 154,274 | Mississippi | 36,850 |
| Ohio | 134,831 | Kansas | 36,846 |
| North Carolina | 127,946 | Iowa | 35,639 |
| New Jersey | 111,441 | Idaho | 28,232 |
| Virginia | 109,919 | New Mexico | 25,438 |
| Michigan | 104,486 | Nebraska | 23,624 |
| Washington | 102,097 | Hawaii | 19,948 |
| Massachusetts | 100,127 | West Virginia | 18,294 |
| Tennessee | 96,880 | New Hampshire | 18,004 |
| Indiana | 89,454 | Maine | 17,725 |
| Arizona | 87,577 | Montana | 14,534 |
| Maryland | 81,349 | Rhode Island | 13,527 |
| Minnesota | 70,043 | Delaware | 12,110 |
| South Carolina | 69,821 | South Dakota | 11,632 |
| Missouri | 69,484 | North Dakota | 10,597 |
| Colorado | 67,462 | Alaska | 8,875 |
| Wisconsin | 65,235 | Vermont | 8,281 |
| Louisiana | 63,050 | Washington D.C. | 6,464 |
| Alabama | 60,839 | Wyoming | 5,032 |
| Kentucky | 58,808 | **U.S. Total** | 4,268,431 |

## Signal Density

The density of signals is an important factor in delay. Of counties with more than 100 signals, the state of New York holds the top four spots in terms of signals per square mile, with Manhattan taking the top spot.

Outside of New York, San Francisco takes number five, the only California county in the top 25.

Other notables include city/counties, like Alexandria, Baltimore, St. Louis, Richmond and Norfolk. These city/counties tend to have significant densities, both in people and in traffic signals, which need to be considered when compared to larger counties like Los Angeles County and Cook County.

**Table 4: Traffic Signal Density by County**

| State | County Name | Square Miles | Signals Analyzed | Signals per Sq. Mile |
|---|---|---|---|---|
| New York | New York County | 22.7 | 2,853 | 0.008 |
| New York | Kings County | 69.4 | 4,993 | 0.014 |
| New York | Bronx County | 42.2 | 1,821 | 0.023 |
| New York | Queens County | 108.7 | 3,599 | 0.030 |
| California | San Francisco County | 46.7 | 1,393 | 0.034 |
| New Jersey | Hudson County | 46.2 | 1,205 | 0.038 |
| Washington D.C. | District of Columbia | 61.1 | 1,572 | 0.039 |
| Pennsylvania | Philadelphia County | 134.3 | 3,215 | 0.042 |
| Massachusetts | Suffolk County | 58.3 | 1,168 | 0.050 |
| Virginia | Alexandria city | 14.9 | 280 | 0.053 |
| Maryland | Baltimore city | 80.9 | 1,267 | 0.064 |
| Virginia | Arlington County | 26.0 | 341 | 0.076 |
| New York | Richmond County | 57.5 | 655 | 0.088 |
| Missouri | St. Louis city | 61.7 | 676 | 0.091 |
| New Jersey | Essex County | 126.1 | 1,171 | 0.108 |
| Colorado | Denver County | 153.1 | 1,386 | 0.110 |
| Virginia | Richmond city | 59.9 | 458 | 0.131 |
| New York | Nassau County | 284.5 | 1,943 | 0.146 |
| Virginia | Norfolk city | 53.3 | 339 | 0.157 |
| Illinois | Cook County | 944.9 | 5,539 | 0.171 |
| Wisconsin | Milwaukee County | 241.5 | 1,391 | 0.174 |
| Ohio | Cuyahoga County | 457.2 | 2,476 | 0.185 |
| New Jersey | Union County | 102.8 | 524 | 0.196 |
| California | Orange County | 793.2 | 3,719 | 0.213 |