INRIX
U.S. Signals Scorecard

February 2021
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Overview

In 2008, the INRIX National Traffic Scorecard provided the first national assessment of traffic congestion at granular day, time, road segment levels.[1] The INRIX U.S. **Signals** Scorecard breaks new ground with a systemic nationwide analysis of individual traffic signals. Utilizing INRIX IQ Signal Analytics,[2] this report considers and weighs all movements at over 210,000 signalized intersections across the U.S.

The methodology used to create the Scorecard is described in Appendix A. At a high-level, a critical mass of connected vehicles providing accurate location updates every five seconds or less are analyzed as they move through the road network. Interactions with traffic signals (also called 'Observed Crossings') are logged, and performance metrics are calculated and aggregated in 15-minute increments.[3] This is by far the most comprehensive report to date with direct measurement of performance of roughly two-thirds of all signals in the United States, with data and conclusions representative of overall national, state, county, and metropolitan area performance.

Using a one week of data from October 4-10, 2020 (chosen as a 'typical' week nationally in 2020 in the new 'Pandemic' paradigm), this report provides the first national benchmarking of key traffic signal performance measures,[4] namely delay per vehicle ('Level of Service') and percent of vehicles arriving on green. Figure 1 shows national summary daily average statistics.

National Daily Averages

Signals Analyzed: 210,815

Traffic Volume/ Vehicle Crossings	• Observed Crossings: **130.5 million** • Observed Crossings/Signal: **~620** • Total Estimated Crossings: **3.67 billion** • Total Estimated Crossings/Signal: **~17,400**
Average Trip	• Trip Length: **9.8 miles** • Trip Time: **17.0 minutes** • Monitored Signals Crossed: **4.1** • Total Signal Delay per Trip: **69.3 secs** • % of Trip Time Delayed at Signals: **6.8%**
Control Delay	• Average Delay/Vehicle/Signal: **16.9 secs** • Average Total Delay/Signal: **81.7 hours** • Total Delay: **~17.25 million hours**
Stops	• Arrival on Green: **62.8%** • Total Stops/Signal: **~6,475** • Total Stops: **~1.365 billion**

Figure 1 - National Daily Average, Week of October 4-10, 2020

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[1] https://inrix.com/press-releases/2618/

[2] For Information on INRIX IQ Signal Analytics, offered in partnership with the CATT Laboratory, see: https://inrix.com/products/signal-analytics/

[3] Industry experts believe there are over 300,000 signalized intersections in the U.S. The Institute of Transportation Engineers estimated in 2018 there were 327,860 signals: https://www.tsbenchmarking.org/wp-content/uploads/2020/03/TSBSOPR-Final-Report-NOCoE-ITE.pdf

[4] For background on signal performance measures: https://ops.fhwa.dot.gov/arterial_mgmt/performance_measures.htm

The Signal Scorecard is augmented by an online national map showing all intersections analyzed and, when clicked, their average level of service, arrival on green percentage and peak demand hour for the week (see Figure 2).
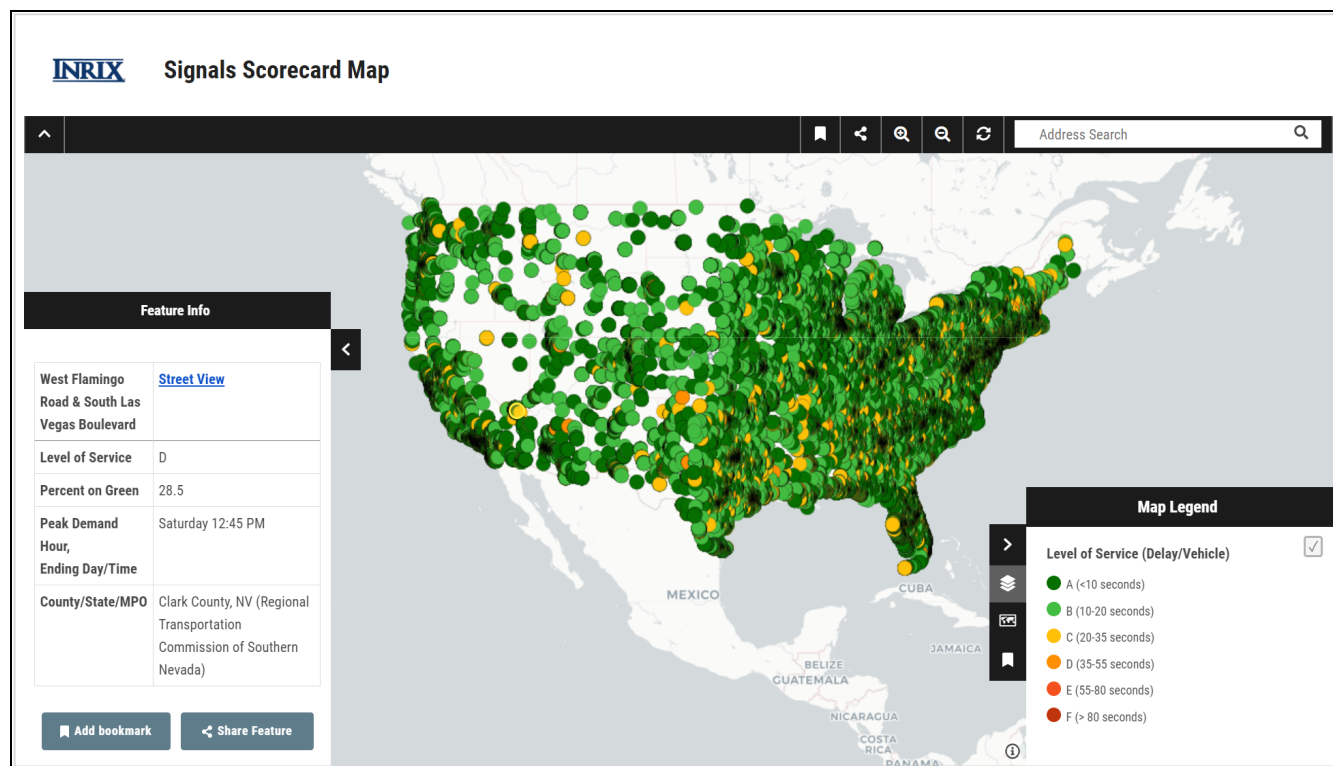

Figure 2 – US Signals Scorecard Summary Map (https://inrix.com/signals-scorecard/map)

This Scorecard provides key findings, including results by states, metropolitan areas, and counties. It also identifies the nation's 25 worst performing intersections by level of service (LOS) and arrival on green percentage. Appendix A describes the methodology used to create the Scorecard; Appendix B contains one-page summaries of results for each state and the District of Columbia.

Key Findings

With data generated by nearly a billion observed crossings, we expect to continue analyzing the data and share noteworthy findings in future blog posts and presentations. In the initial analysis, two key findings stand out:

Finding: Signals Responsible for More Congestion than Previously Understood

A seminal report on the causes of traffic congestion published in 2004 estimated 5% of total delay was due to poor signal timing.[5] Emerging research is concluding that this number is likely much higher, with findings from two states estimating roughly 25% of total delay attributed to signals.[6] Our direct measurements of individual vehicles interacting with individual intersections is consistent with this emerging research.

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[5] https://ops.fhwa.dot.gov/congestion_report/executive_summary.htm#what_is_congestion
[6] https://tetcoalition.org/projects/transportation-disruption-and-disaster-statistics/

Results are based on more than 220 million trips over the course of the study week that collectively traveled over 2.2 billion miles. The average trip:

- Traveled 9.8 miles, lasting 17 minutes
- Passed through 4.1 analyzed signals, spending 69.3 seconds in total delay at these signals
- Meaning: 6.8% of the total time of a random trip in the U.S. was spent waiting at one of these 210,815 signals

Since we are analyzing roughly two-thirds of the nation's signals, the 6.8% computed is a floor. Scaling up to an average of 10% of total trip time spent delayed at signals when all signals are accounted for is a reasonable estimate. Note this is 10% of total trip time, not the percent of time spent in congestion. If all travel was in congestion, then 10% of total delay would be from signals. Of course not all travel occurs in congestion, thus the actual percentage of congestion signals contribute has to be more than 10%. For example, if 40% of the average trip time is spent in congestion, then 25% of total delay would be caused by traffic signal delay.

Finding: Middays Need More Attention – Morning Commutes May Need Less

Historically, the road network has largely been planned and operated around the morning and evening weekday commutes. This new data shows that the midday periods Monday through Saturday have more demand and perform more poorly than the traditional weekday morning commute periods. Changes in travel patterns in the COVID era have resulted in less overall travel.[7] Clearly commute trips have been impacted most dramatically, particularly in business districts.[8]

While it requires a crystal ball to determine with precision what happens next regarding commute patterns (e.g., more work from home could be offset by less transit use, and all can vary by region), the 'old normal' clearly no longer applies.[9] It is likely it will take many months and possibly years for a 'new normal' to emerge. In the context of signals, the ebbs and flows of when, where and how much demand fluctuates increases the need to monitor and adapt to these changes.

National Results

The total number of daily crossing volumes, stops and turn movements at traffic signals is staggering. For the 210,815 signals analyzed, there were roughly 3.7 **billion** total estimated crossings per day (a crossing is one vehicle moving through one signalized intersection), with more than 1.3 **billion** stops per day.

The average signal had roughly 17,400 estimated vehicle crossings per day. Even with 62.8% of vehicles getting through on green, each vehicle was delayed 16.9 seconds for each crossing (meaning those that stopped waited on average 45 seconds). In total, the *average* signal analyzed generated nearly 82 total hours of delay each day. The *median* signal analyzed had roughly 14,800 estimated vehicle crossings, 13 seconds of delay per vehicle and generated 51 total hours of delay each day.

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[7] Down 9%, October 2020 vs. October 2019 nationwide: https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm
[8] https://www.newgeography.com/content/006930-work-trips-csas-with-largest-cbds
[9] https://www.forbes.com/sites/jacknerad2/2020/08/27/covid-19-could-change-commuting-forever-results-arent-what-youd-guess/?sh=72ef87807ac0

Traffic Volumes/Estimated Total Vehicle Crossings

Figure 3 shows the cumulative hourly estimated vehicle crossings nationwide. Each intersection's count of actual vehicle crossing observations over each rolling hour in 15-minute increments is scaled up using INRIX Volume Profiles. Then, all scaled values are added together for a national total. Figure 4 portrays the same data in a heatmap mode, with higher relative volume in red.
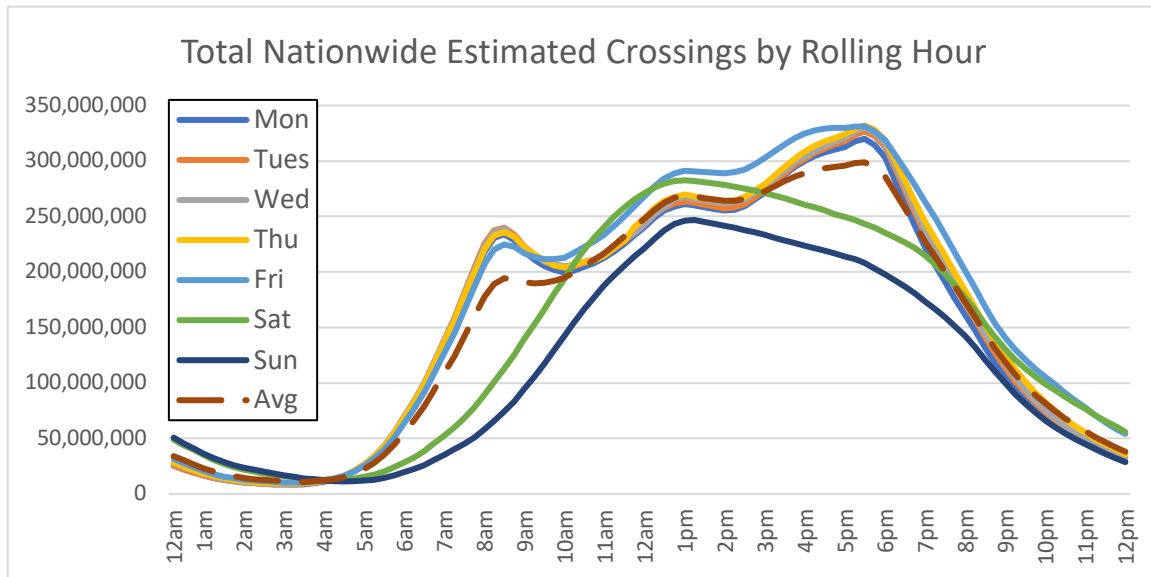

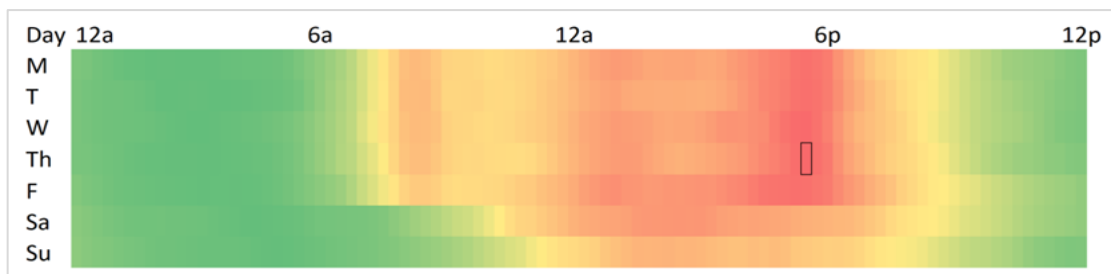*Figure 3 - Estimated Volume/Vehicle Crossings by Hour, Nationwide*

Figure 4 - Estimated Vehicle Crossings Day/Time Heatmap, with peak bordered (Red is highest, Green is lowest)

The nature of demand over the course of the week generally fits expectations, with weekday peaks in the afternoon each day. The busiest hour nationally was Thursday, 4:30-5:30pm, with over 330 million estimated total crossings, an hourly average of roughly 1,570 crossings per intersection. Weekends generally match expectations, with Saturday busier than Sunday, and midday Saturday being as busy or busier than Friday at the same time. Most interesting is the AM weekday peaks. While noticeable, they are not nearly as active as PM weekdays. Further, by noon most days, total demand exceeds AM peak and stays higher through the PM peak. While this may be exacerbated by work from home and virtual schooling during the pandemic, this trend bears watching. It could be that the AM peak is far less important overall than the midday period going forward.

Arrival on Green Metric

Figure 5 summarizes the weighted arrival on green percentage, by day for each rolling hour of the week, in 15-minute increments. Overall, the weekly weighted average for the more than 900 million observed vehicle crossings was

62.8%. Results vary widely by time of day, with most weekdays from noon through the PM peak period averaging under 60%. The worst hour of the week is Friday 3:15-4:15pm at 56.6%. Weekday AM peaks perform better than midday, which stands to reason given both the lower demand (likely the most impacted in terms of overall demand from the pandemic) and its focus in signal timing (weekday AM and PM peaks typically get the most attention in signal timing planning).
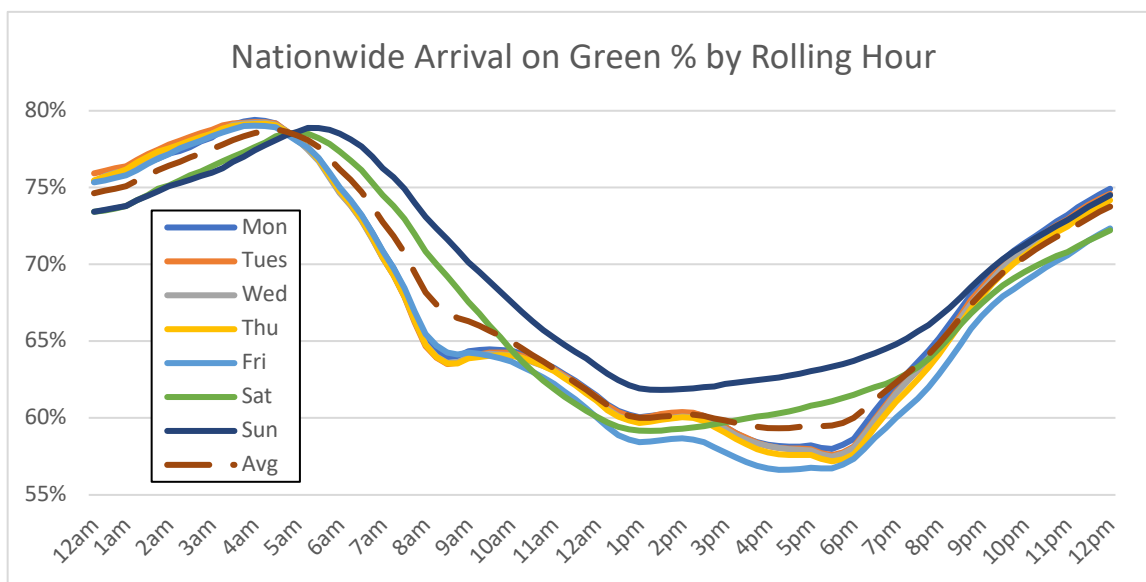

Figure 5 - Nationwide Arrival on Green % by Rolling Hour, Day

Figure 6 shows total results of arrival on green and red, by day. While the daily average is similar each day, hovering around the overall average of 62.8%, total demand changes the impact of the number of total stops each day. Friday has nearly 1.6 billion total stops, well above the overall daily average of 1.35 billion; Sunday has just over 1 billion total stops.
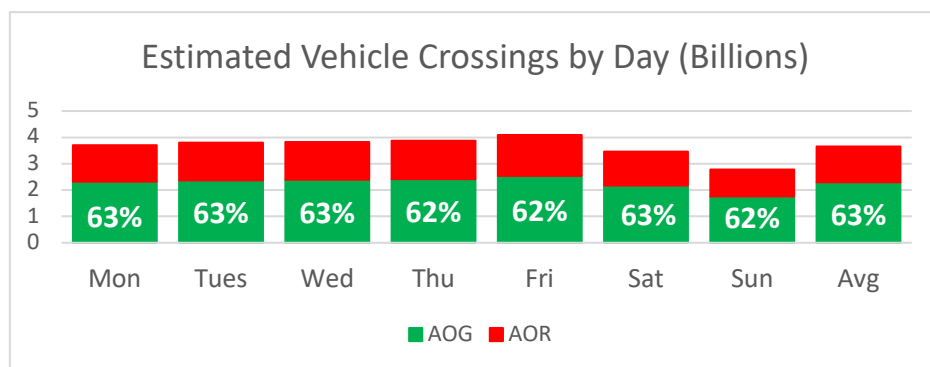

Figure 6 - National Arrivals on Green/Red by Day

Delay Metrics

Delay per vehicle and overall delay metrics are both important signal performance metrics, and both are measured in INRIX Signal Analytics and analyzed in this Scorecard.

Control Delay/Level of Service (LOS)

For a single vehicle, control delay is determined by comparing the actual travel time with the 'free flow' travel time of the particular movement of the vehicle as it travels through the intersection. For example, if free flow is 10 seconds, but the vehicle took 30 seconds to enter and exit the zone of influence, the control delay is 20 seconds. Delay per

Vehicle is the weighted average of all vehicle crossings at an intersection for a given time period. Delay per Vehicle values are used to establish Level of Service (LOS) using industry standard A-F grades for each intersection.[10]

Figure 7 shows nationwide aggregated Delay Per Vehicle by day for each rolling hour, in 15-minute increments, each day. Figure 8 portrays the same data in a heatmap mode, with higher relative delay in red. As expected, results are generally the inverse of the Arrival on Green results shown in Figure 4. When more stops occur, delays per vehicle increase. The peak hour delay per vehicle nationally is Friday, 4:30-5:30pm, at 21.2 seconds.
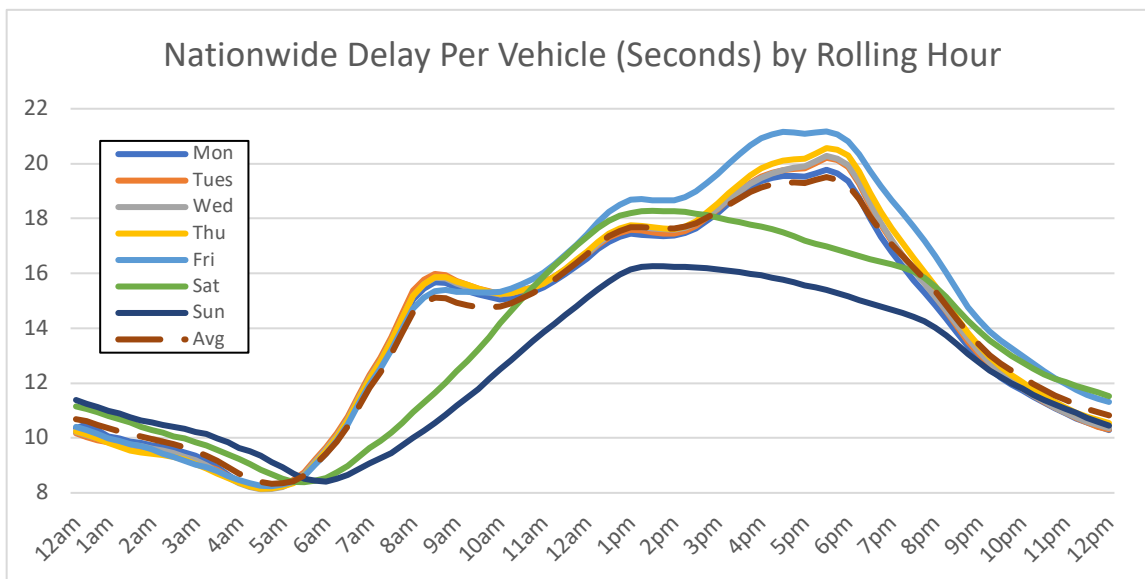

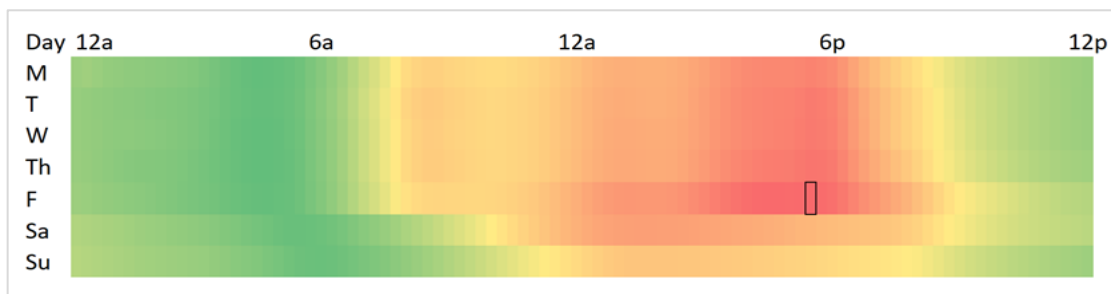*Figure 7 - Nationwide Delay Per Vehicle by Hour by Day*

Figure 8 - Estimated Delay Per Vehicle, with peak bordered (Red is highest, Green is lowest)

Table 1 shows the count and percentage of signals analyzed by their level of service for the full week. Note that only 3% of total signals average Level of Service D or lower, with barely 0.1% of total signals average Level of Service E or F.

Level of Service		# of Signals	% of Signals
A	(< 10 secs)	64,611	31%
B	(10 -20 secs)	92,094	44%
C	(20 - 35 secs)	47,000	22%
D	(35 - 55 secs)	6,883	3%
E	(55 - 80 secs)	213	0.1%
F	(> 80 secs)	14	0.01%

Table 1 - Signals by Weekly Average Level of Service

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[10] https://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm#3.4

Total Delay

Total delay is determined by multiplying Delay per Vehicle by the total estimated vehicle crossings for the time period. Figure 9 shows total national delay by hour and day, essentially a conflation of Figures 3 and 7. The peak hour of total delay matches the peak hour delay per vehicle, Friday at 4:30-5:30pm. Nearly 2 million total hours of delay was created in this peak hour, averaging over 9 hours of delay at each intersection in the U.S.
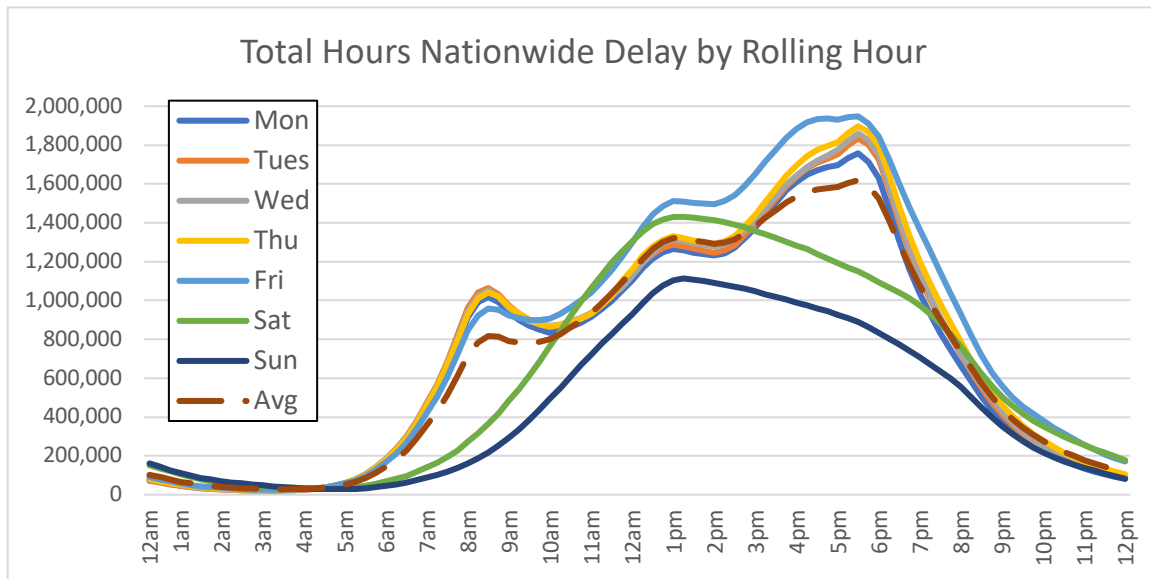

Figure 9 - Nationwide Total Hours of Delay by Hour by Day

Results by State

Appendix B provides summary information for each state. Table 2 highlights some key statistics and daily average metrics for each state, with the highest value (lowest in the case of Arrival on Green) noted in bold, italics. As expected, there is a wide variance of results:

- 11 states have over 5,000 signals analyzed; 16 states have less than 1,000 signals analyzed.
- Estimated total crossings per day, per signal ranged from under 13,000 (South Dakota and Iowa) to over 24,000 per day (Nevada and Arizona).
- Arrival on Green percentages ranged from 56% (Massachusetts) to 69% (Nebraska).
- Total stops per day per signal ranged from 4,500 (South Dakota and Iowa) to 10,300 (Nevada).
- Delay per Vehicle average ranged from 11.5 to 21.1 seconds. Lowest total statewide daily delay was under 17,000 hours a day (Vermont and Wyoming), less than 1% of the California's 2.7 million hours a day.
- Total hours of delay per day per signal ranged from under 47 hours (Wyoming and Iowa) to 144 hours (Nevada).

State	Signals Analyzed	Est Vehicle Crossings/ Signal	Observed Crossings/ Signal	Arrival on Green (%)	Est Stops/ Signal	Delay/ Vehicle (Sec)	Total Delay (Hours)	Total Delay/ Signal (Hours)
AK	328	20,386	535	67.6%	6,597	13.9	25,890	78.9
AL	2,199	16,526	646	65.1%	5,763	16.8	169,774	77.2
AR	664	16,830	844	60.1%	6,709	15.9	49,378	74.4
AZ	4,818	24,338	768	64.6%	8,604	16.3	531,017	110.2
CA	*27,527*	20,529	473	61.2%	7,974	17.3	*2,713,827*	98.6
CO	4,455	21,775	451	67.6%	7,061	14.7	395,078	88.7
CT	2,440	15,725	731	62.5%	5,901	14.8	157,323	64.5
DC	1,113	17,396	304	63.4%	6,368	20.4	109,531	98.4
DE	889	16,318	631	66.2%	5,515	16.3	65,700	73.9
FL	15,327	22,371	831	64.9%	7,853	18.2	1,734,506	113.2
GA	4,670	16,852	647	65.2%	5,871	17.4	380,171	81.4
HI	603	22,515	321	64.5%	7,991	16.5	62,156	103.1
IA	1,752	12,790	660	64.4%	4,551	13.2	81,910	46.8
ID	798	19,057	486	58.7%	7,865	18.0	76,138	95.4
IL	9,402	18,247	824	61.3%	7,058	17.3	825,698	87.8
IN	3,799	15,791	731	62.4%	5,942	14.9	249,025	65.6
KS	1,696	14,890	491	61.4%	5,741	14.8	104,141	61.4
KY	2,503	15,981	549	65.7%	5,475	15.8	175,560	70.1
LA	892	14,742	781	58.9%	6,053	19.2	70,276	78.8
MA	4,034	15,802	389	*56.0%*	6,946	19.1	338,472	83.9
MD	4,772	19,858	511	63.6%	7,221	17.6	464,532	97.3
ME	331	16,611	540	57.2%	7,102	17.5	26,656	80.5
MI	7,091	19,861	*1,422*	65.2%	6,906	14.9	581,711	82.0
MN	3,302	15,159	563	64.2%	5,432	14.4	200,838	60.8
MO	4,016	15,100	686	65.0%	5,289	14.7	248,417	61.9
MS	815	15,812	647	59.2%	6,452	18.1	64,905	79.6
MT	446	17,556	561	62.5%	6,580	15.7	34,059	76.4
NC	5,603	17,565	526	66.3%	5,914	14.2	387,253	69.1
ND	290	16,850	917	65.0%	5,905	13.5	18,364	63.3
NE	1,563	15,657	661	69.0%	4,852	12.0	81,452	52.1
NH	763	15,772	603	58.2%	6,600	17.3	57,882	75.9
NJ	7,771	14,190	474	60.5%	5,599	17.4	532,404	68.5
NM	1,331	17,240	595	63.2%	6,342	15.1	96,114	72.2
NV	1,713	*24,587*	706	58.1%	*10,303*	*21.1*	246,694	*144.0*
NY	18,560	13,898	438	61.8%	5,307	20.0	1,431,419	77.1
OH	9,251	13,956	659	64.1%	5,014	15.1	542,925	58.7
OK	2,277	14,341	656	58.8%	5,914	17.9	162,061	71.2
OR	3,071	15,998	288	64.1%	5,748	14.8	202,513	65.9
PA	8,837	13,176	495	59.7%	5,315	17.3	557,932	63.1
RI	640	15,233	444	58.4%	6,333	16.2	43,851	68.5
SC	2,263	20,346	685	63.8%	7,366	15.8	202,640	89.5
SD	569	12,675	575	63.9%	4,579	13.8	27,587	48.5
TN	1,946	19,719	648	60.6%	7,773	18.1	193,295	99.3
TX	18,024	15,622	801	62.2%	5,899	17.5	1,365,307	75.7
UT	1,572	18,575	525	63.9%	6,705	15.5	125,659	79.9
VA	4,489	18,300	444	64.8%	6,440	15.9	363,565	81.0
VT	252	14,682	541	61.8%	5,609	15.9	16,315	64.7
WA	5,101	17,226	299	61.4%	6,652	16.6	405,236	79.4
WI	3,350	13,588	653	63.5%	4,959	14.1	178,395	53.3
WV	542	15,503	581	61.7%	5,939	15.4	35,853	66.1
WY	355	14,612	530	68.0%	4,674	11.5	16,631	46.8
Total	**210,815**	**17,410**	**619**	**62.8%**	**6,475**	**16.9**	**17,228,037**	**81.7**

Table 2 - State Summaries, Daily Averages

Results by Metropolitan Planning Areas

The Scorecard also analyzed signals in 402 federally designated Metropolitan Planning Areas.[11] The official federal Metropolitan Planning Organization names/acronyms are used in the Scorecard, with the scale of regions differing widely. Some MPAs/MPOs represent full metropolitan areas (e.g., the Southern California Association of Governments), while others represent portions of generally recognized metropolitan areas (e.g., Miami-Dade, Broward and Palm Beach counties all have separate MPOs).

93% of the signals analyzed, all but roughly 15,500 signals nationwide, were in MPAs. The average number of signals analyzed in each MPA is 487, with a median of 134 signals. 254 MPAs have 100 signals or more, 69 have 500 signals or more, and 41 have 1,000 signals or more. Tables 3 through 6 show weekly average 'Top Ten' lists for MPOs with 500 or more signals analyzed for key metrics.

MPO	Signals Analyzed	Arrival on Green (%)
RGVMPO (McAllen, TX)	982	55.6%
Boston Region MPO	2,647	55.9%
RTCSNV (Las Vegas)	1,221	57.7%
LVTS (Allentown, PA)	513	58.0%
SPC (Rhode Island)	646	58.4%
ACOG (Oklahoma City)	1,175	58.5%
DVPRC (Philadelphia)	4,740	58.9%
MACOG (South Bend, IN)	559	59.7%
NJTPA (Northern New Jersey)	5,666	60.0%
Indianapolis MPO	784	60.3%

Table 3 - Lowest Arrival of Green (%), 500 Signals Min

MPO	Signals Analyzed	Est Stops/ Signal
RTCSNV (Las Vegas)	1,221	11,512
Broward MPO (FL)	1,279	8,736
MAG (Phoenix)	3,944	8,730
Memphis MPO	599	8,717
SCAG (Los Angeles)	15,617	8,663
SACOG (Sacramento)	858	8,608
Palm Beach MPO (FL)	1,053	8,419
PPACG (Colorado Springs)	638	8,394
Miami-Dade MPO (FL)	2,442	8,020
Sarasota-Manatee MPO (FL)	523	7,922

Table 4 - Highest Daily Stops/Signal, 500 Signals Min

MPO	Signals Analyzed	Delay/Vehicle (Sec)
NYMTC (New York)	13,151	22.1
RTCSNV (Las Vegas)	1,221	22.1
Miami-Dade MPO	2,442	22.0
Boston Region MPO	2,647	20.3
Hillsborough MPO	1,004	19.6
Broward MPO	1,279	19.5
Nashville Area MPO	628	18.8
ACOG (Oklahoma City)	1,175	18.7
HGAC (Houston)	4,124	18.6
METROPLAN Orlando	1,781	18.5

Table 5 - Highest Average Delay/Vehicle, 500 Signals Min

MPO	Signals Analyzed	Total Delay/ Signal (Hours)
RTCSNV (Las Vegas)	1,221	167.0
Broward MPO	1,279	134.6
Miami-Dade MPO	2,442	128.5
Palm Beach MPO	1,053	118.7
Hillsborough MPO	1,004	116.4
Sarasota-Manatee MPO	523	114.8
MAG (Phoenix)	3,944	113.9
METROPLAN Orlando	1,781	111.7
SCAG (Los Angeles)	15,617	109.4
Polk County TPO (FL)	508	106.0

Table 6 - Highest Total Daily Delay/Signal, 500 Signals Min

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[11] MPA boundaries were derived from this file, each with a distinct MPO (Metropolitan Planning Organization):
https://hepgis.fhwa.dot.gov/fhwagis/MPOBoundary_11102020.zip

Table 7 summarizes results for the 25 largest MPAs/MPOs by the number of signals analyzed, with the highest value (lowest in the case of Arrival on Green) noted in bold, italics. While all urban areas, the nature of the road networks (signal density, demand, etc.) vary widely and this variety show up in the results:

- Estimated daily crossings per signal ranged from roughly 12,400 (Cleveland) to over 25,100 per day (Phoenix).
- Arrival on Green percentages ranged from 56% (Boston) to 68% (Denver).
- Total stops per signal ranged from roughly 4,800 (Cleveland) to over 8,700 (Phoenix).
- Delay per Vehicle ranged from 14.5 seconds in the St. Louis area to 22.1 seconds in the New York City area.
- Total hours of delay per signal ranged from 57 hours in the Cleveland area to nearly 130 hours in Miami.

MPO	Signals Analyzed	Est Vehicle Crossings/ Signal	Observed Crossings/ Signal	Arrival on Green (%)	Est Stops/ Signal	Delay/ Vehicle (Sec)	Total Delay (Hours)	Total Delay/ Signal (Hours)
SCAG (Los Angeles)	*15,617*	22,611	538	61.7%	8,663	17.4	*1,708,085*	109.4
NYMTC (New York)	13,151	13,776	301	61.5%	5,304	*22.1*	1,112,445	84.6
CMAP (Chicago)	7,587	19,388	866	60.6%	7,641	17.9	733,204	96.6
MTC (San Francisco Bay Area)	5,888	15,301	274	60.9%	5,982	17.4	435,855	74.0
NJTPA (Northern New Jersey)	5,666	14,020	466	60.0%	5,603	17.8	393,531	69.5
NCTCOG (Dallas/Ft. Worth)	5,636	16,537	807	62.3%	6,236	17.6	455,271	80.8
SEMCOG (Detroit)	4,935	20,235	*1,518*	66.5%	6,770	14.8	409,188	82.9
DVRPC (Philadelphia)	4,740	14,539	490	58.9%	5,973	17.9	341,772	72.1
NCR TPB (Washington, DC)	4,665	19,175	421	64.3%	6,837	17.7	440,559	94.4
HGAC (Houston)	4,124	16,566	838	61.7%	6,338	18.6	353,006	85.6
MAG (Phoenix)	3,944	*25,149*	799	65.3%	*8,730*	16.3	449,311	113.9
PSRC (Seattle)	3,114	17,479	292	61.6%	6,711	17.3	261,725	84.0
DRCOG (Denver)	3,097	22,066	449	68.1%	7,041	14.7	278,419	89.9
ARC (Atlanta)	2,915	17,846	698	65.8%	6,107	18.1	261,882	89.8
OK RCOG (Cincinnati)	2,687	15,970	684	66.7%	5,311	15.0	178,473	66.4
Boston Region MPO	2,647	14,776	353	*55.9%*	6,513	20.3	220,171	83.2
Baltimore RTB	2,584	18,456	496	62.3%	6,960	18.2	241,714	93.5
Miami-Dade MPO	2,442	21,019	906	61.8%	8,020	22.0	313,882	*128.5*
Metropolitan Council (Twin Cities)	2,438	15,102	534	64.4%	5,375	14.6	149,336	61.3
SANDAG (San Diego)	2,431	19,549	396	60.7%	7,683	17.5	230,845	95.0
SPC (Pittsburgh)	1,990	13,091	608	61.2%	5,082	17.3	125,208	62.9
MARC (Kansas City)	1,954	15,113	551	62.6%	5,659	14.8	121,683	62.3
EWCGOC (St. Louis)	1,923	15,142	820	67.9%	4,864	14.5	116,934	60.8
NOACA (Cleveland)	1,862	12,393	699	61.4%	4,784	16.5	105,870	56.9
PACTS (Portland, OR)	1,792	14,937	248	64.1%	5,368	15.4	114,682	64.0

Table 7 - 25 Largest Metropolitan Planning Area/Organization Summaries, Daily Averages

Results by County

The Scorecard analyzed signals in 2,352 different counties and county-equivalents. Overall, the average number of signals analyzed in each of the 2,352 counties was 90, but the median was only 11 signals. 377 counties have 100 signals or more analyzed, 94 have 500 signals or more analyzed, and 43 have 1,000 signals or more. Tables 8 through 11 show weekly average 'Top Ten' lists for counties with 500 or more signals analyzed for key metrics.

County	Signals Analyzed	Arrival on Green (%)
BRONX, NY	1,012	51.7%
HIDALGO, TX	637	54.6%
SUFFOLK, MA	751	54.7%
ESSEX, NJ	1,103	54.8%
PHILADELPHIA, PA	1,549	55.1%
MIDDLESEX, MA	1,317	55.7%
BERGEN, NJ	542	56.4%
CLARK, NV	1,219	57.7%
QUEENS, NY	2,743	57.9%
COOK, IL	5,196	58.2%

Table 8 - Lowest Arrival of Green (%), 500 Signals Min

County	Signals Analyzed	Est Stops/ Signal
CLARK, NV	1,219	11,525
MACOMB, MI	592	10,255
ORANGE, CA	2,835	9,353
SAN BERNARDINO, CA	1,223	9,314
COLLIN, TX	616	9,099
SACRAMENTO, CA	514	9,060
PRINCE GEORGE'S, MD	511	8,916
BROWARD, FL	1,285	8,741
MARICOPA, AZ	3,845	8,741
LOS ANGELES, CA	9,568	8,487

Table 9 - Highest Daily Stops/Signal, 500 Signals Min

County	Signals Analyzed	Delay/Vehicle (Sec)
BRONX, NY	1,012	27.9
SUFFOLK, MA	751	24.0
KINGS, NY	3,886	23.5
NEW YORK, NY	2,512	23.4
QUEENS, NY	2,743	23.2
CLARK, NV	1,219	22.1
MIAMI-DADE, FL	2,438	22.0
HUDSON, NJ	1,148	21.3
BALTIMORE (CITY), MD	1,115	20.7
PHILADELPHIA, PA	1,549	20.5

Table 10 - Highest Average Delay/Vehicle, 500 Signals Min

County	Signals Analyzed	Total Delay/ Signal (Hours)
CLARK, NV	1,219	167.2
MACOMB, MI	592	136.0
BROWARD, FL	1,285	134.6
MIAMI-DADE, FL	2,438	128.5
PRINCE GEORGE'S, MD	511	123.9
ORANGE, CA	2,835	122.3
PALM BEACH, FL	1,053	118.7
COLLIN, TX	616	118.3
HILLSBOROUGH, FL	1,009	115.9
MARICOPA, AZ	3,845	114.2

Table 11 - Highest Total Daily Delay/Signal, 500 Signals Min

Table 12 summarizes results for the 25 largest counties by number of signals analyzed, with the highest value (lowest in the case of Arrival on Green) noted in bold, italics. As stated previously, while all urban areas, the nature of the road networks vary widely and this variety is evident in the results:

- Estimated daily crossings per signal range from just under 11,000 (Philadelphia) to just under 26,000 per day (Oakland, MI).
- Arrival on Green percentages ranged from 58% (Queens, NY) to 69% (Oakland, MI).
- Total stops per signal ranged from roughly 4,250 (Cuyahoga, OH) to 9,350 (Orange, CA).
- Delay per Vehicle ranges from 15.3 seconds in Hennepin County (Minneapolis), MN to 23.5 seconds in Kings County (Brooklyn), NY
- Total hours of delay per signal ranged from 53 in Hennepin County to 135 hours in Broward County, FL.

County	Signals Analyzed	Est Vehicle Crossings/ Signal	Observed Crossings/ Signal	Arrival on Green (%)	Est Stops/ Signal	Delay/ Vehicle (Sec)	Total Delay (Hours)	Total Delay/ Signal (Hours)
LOS ANGELES, CA	*9,568*	21,836	499	61.1%	8,487	17.9	*1,037,659*	108
COOK, IL	5,196	18,156	788	58.2%	7,597	19.4	507,421	98
KINGS, NY	3,886	11,953	176	59.4%	4,854	*23.5*	303,116	78
MARICOPA, AZ	3,845	25,144	797	65.2%	8,741	16.4	439,204	114
HARRIS, TX	3,019	15,206	781	61.5%	5,860	19.0	242,822	80
ORANGE, CA	2,835	25,380	548	63.1%	*9,353*	17.3	346,764	122
QUEENS, NY	2,743	11,472	225	*57.9%*	4,828	23.2	202,809	74
NEW YORK, NY	2,512	15,766	287	67.3%	5,154	23.4	257,021	102
DALLAS, TX	2,487	13,575	681	62.7%	5,062	17.2	161,280	65
WAYNE, MI	2,447	14,853	999	63.7%	5,386	14.8	149,827	61
MIAMI-DADE, FL	2,438	21,020	906	61.9%	8,019	22.0	313,379	129
SAN DIEGO, CA	2,431	19,549	396	60.7%	7,683	17.5	230,845	95
KING, WA	2,055	15,163	244	62.0%	5,755	17.4	150,316	73
TARRANT, TX	1,687	16,113	796	62.1%	6,107	18.1	136,475	81
SANTA CLARA, CA	1,622	13,737	290	59.5%	5,561	18.2	112,774	70
CUYAHOGA, OH	1,580	11,326	631	62.4%	4,264	16.3	80,975	51
PHILADELPHIA, PA	1,549	10,933	349	55.1%	4,909	20.5	96,626	62
HAMILTON, OH	1,453	13,875	594	66.5%	4,647	14.8	82,870	57
RIVERSIDE, CA	1,433	23,215	677	63.5%	8,463	15.4	142,349	99
HENNEPIN, MN	1,411	12,399	402	64.2%	4,435	15.3	74,419	53
OAKLAND, MI	1,370	*25,810*	*2,124*	69.0%	8,010	14.4	141,171	103
NASSAU, NY	1,354	21,031	689	66.4%	7,075	17.8	140,509	104
MIDDLESEX, MA	1,317	15,365	352	55.7%	6,803	19.1	107,162	81
BROWARD, FL	1,285	24,809	907	64.8%	8,741	19.5	172,952	*135*
ALLEGHENY, PA	1,265	13,107	586	60.8%	5,137	18.3	84,353	67

Table 12 - 25 Largest County Summaries, Daily Averages

'Worst' Urban Intersections

Of the 195,321 signals analyzed in designated MPAs, some perform better than area wide averages, some perform worse, or far worse. And some stand out 'above' the rest. This section focuses on 'notable' intersections. Table 13 ranks signals with the highest average delay per vehicle. Table 14 ranks signals with the worst arrival on green percentage. To make the lists in Tables 13 and 14, the intersection must average at least 1,000 observed crossings per day; 33,386 intersections met this threshold to be considered.

Given that this Scorecard is based on one week of data, it is possible a number of signals on this list are the result of anomalies, such as short-term or long-term work zones, incidents, weather, special events, or the result of temporary sensor/controller malfunctions. To illustrate this point, while these tables rank intersections in MPAs, there were multiple intersections in the Smoky Mountains of Tennessee that are not in an MPA that would have made both tables – near the top – due to the Smoky Mountain Harvest Festival.[12]

The first intersection listed on Table 13 parallels an active railroad line near Ft. Worth, Texas, with an at-grade crossing immediately adjacent to the intersection. Several of the intersections in Table 14 are more complicated than the standard 4-way intersection, meaning there are many more movements/phases making it harder to provide green time to any individual movement.

Rank	Intersection	County, State	Control Delay/ Vehicle (Secs)	Level of Service	Arrival on Green (%)
1	West Bailey Boswell Rd & Saginaw Blvd	TARRANT, TX	110.2	F	20.3%
2	West Nine Mile Rd & N Palafox St	ESCAMBIA, FL	75.0	E	37.5%
3	Sands Ave & S Las Vegas Blvd	CLARK, NV	72.7	E	21.8%
4	South Walnut Grove Rd & Highway 287	ELLIS, TX	72.5	E	40.6%
5	Airport Blvd & Schillinger Rd S	MOBILE, AL	69.0	E	26.4%
6	Azle Ave & Boat Club Rd	TARRANT, TX	68.4	E	21.8%
7	Hialeah Gardens Blvd & NW 138th St	MIAMI-DADE, FL	68.2	E	31.7%
8	N Lamb Blvd & East Charleston Blvd	CLARK, NV	68.0	E	20.8%
9	N Randall Rd & Algonquin Rd	MCHENRY, IL	64.7	E	24.3%
10	Airport Blvd & University Blvd S	MOBILE, AL	64.7	E	30.2%
11	Hillcrest Rd & Airport Blvd	MOBILE, AL	64.6	E	31.0%
12	S Main St & E Marsile St	KANKAKEE, IL	64.3	E	40.9%
13	Whitmore Lake Rd & E Grand River Ave	LIVINGSTON, MI	62.7	E	21.5%
14	Land O' Lakes Blvd & FL 54	PASCO, FL	61.3	E	27.5%
15	E Palm Drive & Dixie Highway	MIAMI-DADE, FL	61.0	E	32.5%
16	Federal Highway & E Commercial Blvd	BROWARD, FL	60.6	E	28.7%
17	North Jackson Rd	HIDALGO, TX	60.0	E	28.8%
18	John Young Parkway & West Vine St	OSCEOLA, FL	59.6	E	36.3%
19	Martin Luther King Jr. Blvd & 8th St NW	POLK, FL	59.2	E	33.2%
20	Federal Highway & E Hallandale Beach Blvd	BROWARD, FL	58.7	E	27.3%
21	US 301 & Adamo Drive	HILLSBOROUGH, FL	58.1	E	30.5%
22	Pleasant Hill Rd & Peachtree Industrial Blvd	GWINNETT, GA	57.9	E	28.2%
23	Gravois Bluffs Blvd	ST LOUIS, MO	57.9	E	17.8%
24	Gibsonton Drive & US 301	HILLSBOROUGH, FL	57.9	E	32.9%
25	SW 152nd St & SW 137th Ave	MIAMI-DADE, FL	57.5	E	30.8%

Table 13 - Worst Urban Intersections, Delay/Vehicle, Weekly Average

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[12] https://smokymountains.com/dollywood/blog/make-fall-one-remember-2020-harvest-festival/

Rank	Intersection	County, State	Arrival on Green (%)	Control Delay/ Vehicle (Secs)	Level of Service
1	Gravois Bluffs Blvd & MO 141	ST LOUIS, MO	17.8%	57.9	E
2	S 34th St & Grays Ferry Ave	PHILADELPHIA, PA	17.8%	51.6	D
3	7 Mile Rd & Haggerty Rd	WAYNE, MI	19.2%	40.2	D
4	S Archer Ave & S Pulaski Rd	COOK, IL	19.8%	41.8	D
5	S Torrence Ave & S Brainard Ave	COOK, IL	19.8%	27.4	C
6	S Pulaski Rd & W Marquette Rd	COOK, IL	19.9%	35.8	D
7	W Manchester Blvd & S Western Ave	LOS ANGELES, CA	20.0%	45.0	D
8	N Dupont Parkway	NEW CASTLE, DE	20.0%	42.0	D
9	N Spur 63 & W Marshall Ave	GREGG, TX	20.0%	38.3	D
10	S Kings Highway Blvd (@ I-64)	ST LOUIS (CITY), MO	20.2%	47.4	D
11	FL 674 & US 301	HILLSBOROUGH, FL	20.3%	48.6	D
12	W Bailey Boswell Rd & Saginaw Blvd	TARRANT, TX	20.3%	110.2	F
13	N Blue Mound Rd & Basswood Blvd	TARRANT, TX	20.6%	44.7	D
14	East Ave & Bald Hill Rd	KENT, RI	20.8%	46.5	D
15	N Lamb Blvd & E Charleston Blvd	CLARK, NV	20.8%	68.0	E
16	Sherman Way & Woodman Ave	LOS ANGELES, CA	20.9%	46.9	D
17	Street Rd & Bustleton Pike	BUCKS, PA	21.0%	51.2	D
18	El Camino Real & Bay Area Blvd	HARRIS, TX	21.0%	40.9	D
19	S Service Rd & Searingtown Rd N	NASSAU, NY	21.4%	36.2	D
20	Ed Carey Dr & Business 77	CAMERON, TX	21.4%	42.0	D
21	Whitmore Lake Rd & E Grand River Ave	LIVINGSTON, MI	21.5%	62.7	E
22	W 95th St & S Western Ave	COOK, IL	21.5%	53.6	D
23	US 83-S Business; FM 2061 & S Jackson Rd	HIDALGO, TX	21.6%	56.2	E
24	W Cheltenham Ave & E Washington Lane	PHILADELPHIA, PA	21.6%	35.8	D
25	E Silver Lake Rd & N Leroy St	GENESEE, MI	21.6%	41.4	D

Table 14 - Worst Urban Intersections, Arrival on Green %, Weekly Average

Appendix A – Methodology

The INRIX U.S. Signals Scorecard is created using four steps. The first three steps generate data that powers our Signal Analytics service.[13] The fourth step extracts and tailor's data to create findings specifically for the Scorecard.

Step 1: Ingest sufficient, high quality GPS data

- INRIX has been ingesting anonymous GPS data from connected cars, commercial vehicles, and mobile devices since 2006, with consistent growth over time.
- INRIX now ingests over 13 BILLION GPS readings daily in the United States alone.
- For Signal Analytics, INRIX analyzes roughly 85% of those readings with the best location accuracy and highest update rates. This ensures each individual vehicle/device's movement in and around intersections can be logged with high confidence.
- For the time period utilized in this Scorecard, the week of October 4 – 11, 2020 ('Scorecard Week'), we leveraged nearly 11 billion daily GPS readings.

Step 2: Translate GPS readings into Trip Paths

- INRIX Trip Analytics translates GPS readings into discrete trips, with origin, destination, route path, date and time stamps, etc. Data is cleaned, filtered, linked, ordered, and snapped to the road network to enable detailed analysis of trip paths from the beginning to the end of each trip.
- INRIX Trip Analytics generates more than 100 million daily trips traversing over 1 billion miles in the U.S. each day.
- Even in the pandemic economy, with overall travel down 9% nationwide in October 2020 from a year ago,[14] INRIX curated nearly 225 million trips covering 2.2 billion miles traveled across the U.S. during Scorecard Week to be used in Steps 3 and 4.

Step 3: Generate Signal Performance Metrics.

- INRIX Signal Analytics evaluates each individual trip as it moves through a known signalized intersection, creating a log of each vehicle/intersection interaction to enable aggregation of several metrics typically utilized to assess signal performance.
- Key information logged includes day/time stamp, turning movement, stops, and total travel time through the intersection.[15]
- Signal Analytics presently covers over 210,000 signalized intersections in the U.S., with data at the movement, approach, and intersection level.
- Key for overall analysis and this Scorecard is that this approach enables analysis of all movements and approaches at an intersection and, over enough time, the random samples generated by the INRIX Signal Analytics Fleet will mirror overall demand and performance at the intersection.
- INRIX Signal Analytics aggregates metrics at the movement, approach, and intersection level for each intersection. For this Scorecard, data has been aggregated at the intersection level. Figure 10 illustrates how movement level metrics results in weighted average intersection level metrics.

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[13] https://inrix.com/products/signal-analytics/
[14] https://www.fhwa.dot.gov/policyinformation/travel_monitoring/20novtvt/page3.cfm
[15] An explanation of the processes used to create these metrics is here: https://inrix.com/signals-scorecard/methodology

Step 4: Scorecard

- Data was extracted in 15-minute increments for each intersection for the full week of October 4 – 10, 2020. Thus for each metric, there were 672 different results (4/hour x 24 hours x 7 days) for each of 210,815 intersections across the U.S.
- Metrics extracted and used for this Scorecard are the number of observed vehicle crossings, average control delay per vehicle, and arrival on green percentage.
- INRIX Volume Profiles[16] was used to estimate the penetration rate of the observed results at each intersection, to scale up results to represent total estimated traffic at the intersection.
- Intersection scale factors enable total delay calculations and weighted averages for arrival on green percentage and delay/vehicle calculations for intersections rolled up by state, county and MPO.[17]
- Data was extracted one state at a time, and local time is used in all cases. When a state has more than a single time zone, the prevalent time zone is used for all data across the state (e.g., Florida is computed in Eastern Daylight Time).

Figure 10 - Intersection Aggregation Methodology

Appendix B – State Summaries

Appendix B provides summary information for each state. Table 2 highlights some key statistics and daily average metrics for each state, with the highest value (lowest in the case of Arrival on Green) noted in bold, italics. As expected, there is a wide variance of results:

- 11 states have over 5,000 signals analyzed; 16 states have less than 1,000 signals analyzed.
- Estimated total crossings per day, per signal ranged from under 13,000 (South Dakota and Iowa) to over 24,000 per day (Nevada and Arizona).
- Arrival on Green percentages ranged from 56% (Massachusetts) to 69% (Nebraska).
- Total stops per day per signal ranged from 4,500 (South Dakota and Iowa) to 10,300 (Nevada).
- Delay per Vehicle average ranged from 11.5 to 21.1 seconds. Lowest total statewide daily delay was under 17,000 hours a day (Vermont and Wyoming), less than 1% of the California's 2.7 million hours a day.
- Total hours of delay per day per signal ranged from under 47 hours (Wyoming and Iowa) to 144 hours (Nevada).

Alaska

Signals Analyzed: **328**

Signals Analyzed Rank: **49**
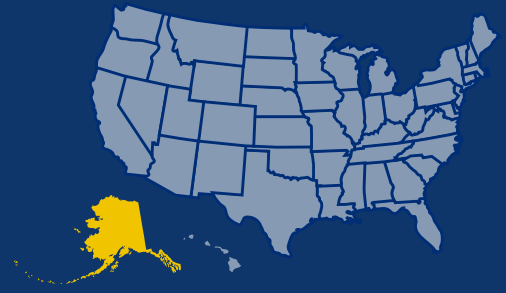
Estimated Crossings/Hour
(in Thousands)
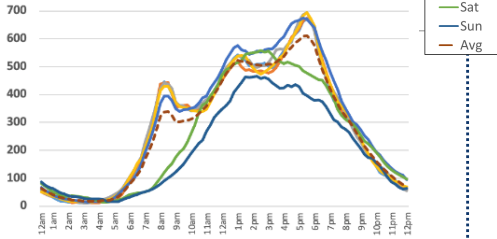
Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
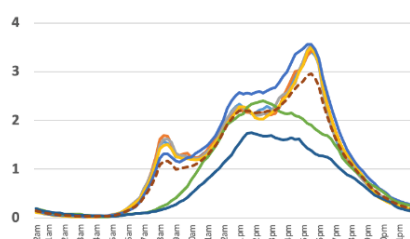
Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour
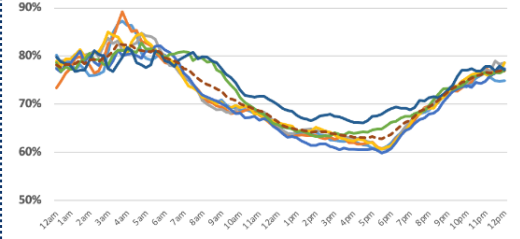
Peak: **Friday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 45%	B = 42%	C = 12%	D+ = 1%

Average Daily VOLUME

535

Observations / Signal

US Average: **619**

Scaled Crossings (millions): **7**
Scaled Crossings/Signal: **20,400**

Weekly PERFORMANCE

13.9

Seconds Delay / Vehicle

US Average: **16.9**   Rank: **46**

Arrival on Green: **67.6%** (US Avg 62.8%; rank: 49)
Stops/Signal/Day: **6,600** (rank: 20)
Hours of Delay/Signal/Day: **79** (rank: 21)

Typical TRIP

5.3%

% Time Stopped at Signals

US Average: **6.8%**   Rank: **24**

Total Travel Time: **14.5 mins** (US Avg 17.0; rank: 51)
Signals Traversed: **3.3 mins** (US Avg 4.1; rank: 27)
Total Signal Delay: **0.77 mins** (US Avg 1.15; rank: 36)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
ANCHORAGE	197	14.2	18,625	95	68.5%	1,482,246
FAIRBANKS NORTH STAR	65	15.1	4,060	62	59.4%	391,880
MATANUSKA-SUSITNA	34	11.4	2,278	67	73.0%	194,340
JUNEAU	18	10.9	358	20	64.6%	41,903
KENAI PENINSULA	12	12.0	566	47	68.6%	53,417

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
E Dimond Blvd & Old Seward Hwy	ANCHORAGE	56,532	590	37.6	37.5%	35,341
Airport Way & Richardson Hwy	FAIRBANKS NORTH STAR	41,137	573	50.2	25.9%	30,498
E Parks Hwy & S Knik-Goose Bay Rd	MATANUSKA-SUSITNA	47,237	472	36.0	40.9%	27,913
E Tudor Rd & Lake Otis Pkwy	ANCHORAGE	60,787	470	27.8	47.6%	31,873
E Northern Lights Blvd & Lake Otis Rd	ANCHORAGE	49,184	396	29.0	44.8%	27,145
Minnesota Dr & Spenard Rd	ANCHORAGE	52,147	393	27.1	47.2%	27,555
E Northern Lights Blvd & Seward Hwy	ANCHORAGE	77,628	383	17.8	65.0%	27,150
C St & W Tudor Rd	ANCHORAGE	58,270	376	23.2	40.8%	34,524
E Tudor Rd & Old Seward Hwy	ANCHORAGE	49,478	364	26.5	51.6%	23,953
E Benson Blvd & Seward Hwy	ANCHORAGE	81,301	345	15.3	67.7%	26,262

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Alabama

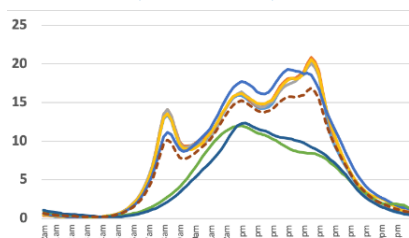Signals Analyzed: **2,199**
Signals Analyzed Rank: **27**
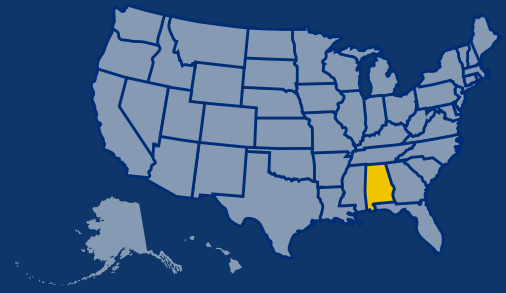
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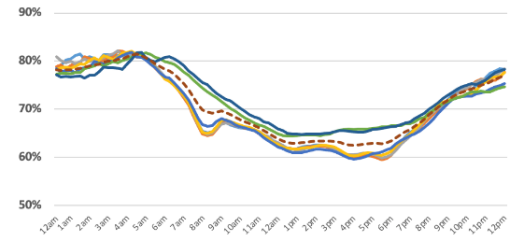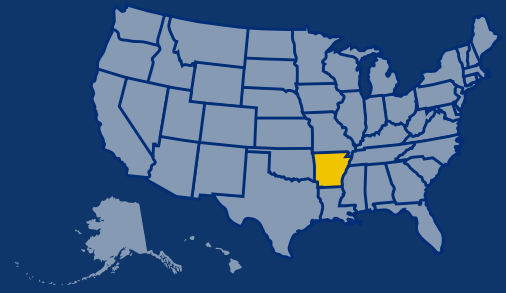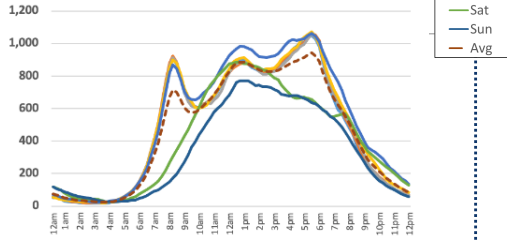(in Thousands)
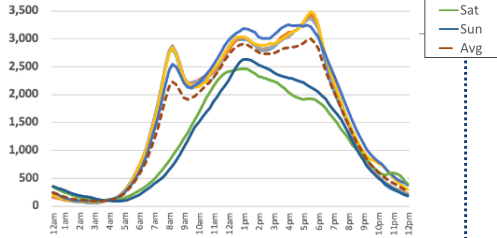
Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Tuesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Tuesday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 34%	B = 42%	C = 19%	D+ = 4%

Average Daily VOLUME

646

Observations / Signal
US Average: 619

Scaled Crossings (millions): **36**
Scaled Crossings/Signal: **16,500**

Weekly PERFORMANCE

16.8

Seconds Delay / Vehicle
US Average: 16.9   Rank: 20

Arrival on Green: **65.1% (US Avg 62.8%; rank: 42)**
Stops/Signal/Day: **5,800 (rank: 35)**
Hours of Delay/Signal/Day: **77 (rank: 23)**

Typical TRIP

4.3%

% Time Stopped at Signals
US Average: 6.8%   Rank: 37

Total Travel Time: **18.4 mins (US Avg 17.0; rank: 5)**
Signals Traversed: **2.8 mins (US Avg 4.1; rank: 36)**
Total Signal Delay: **0.79 mins (US Avg 1.15; rank: 32)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MADISON	336	15.4	21,015	63	67.7%	1,586,386
MOBILE	315	21.3	28,674	91	60.9%	1,898,381
JEFFERSON	291	16.9	19,051	65	64.4%	1,444,723
BALDWIN	151	15.6	14,449	96	65.5%	1,152,362
TUSCALOOSA	134	16.9	13,471	101	68.2%	910,800
CALHOUN	110	12.7	5,278	48	70.3%	445,202
MONTGOMERY	104	15.9	7,149	69	70.2%	484,294
LAUDERDALE	101	16.2	6,571	65	61.7%	560,010
LIMESTONE	78	14.5	4,395	56	66.7%	362,694
MORGAN	65	16.1	5,888	91	62.6%	492,444

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
SR 69 & McFarland Blvd	TUSCALOOSA	57,641	815	50.9	31.5%	39,509
Vets Mem Pkwy & McFarland Blvd E	TUSCALOOSA	56,279	782	50.0	35.8%	36,116
Airport Blvd & Schillinger Rd S	MOBILE	39,849	763	69.0	26.4%	29,335
Airport Blvd & University Blvd S	MOBILE	42,227	759	64.7	30.2%	29,487
US 280 & Cahaba Valley Rd	SHELBY	70,237	677	34.7	53.6%	32,588
Ross Clark Circle & W Main St	HOUSTON	38,898	619	57.3	32.6%	26,205
Hillcrest Rd & Airport Blvd	MOBILE	32,037	575	64.6	31.0%	22,101
Ross Clark Circle & Montgomery Hwy	HOUSTON	35,978	561	56.1	26.0%	26,636
Montgomery Hwy & John Hawkins Pkwy	JEFFERSON	45,424	560	44.4	37.7%	28,307
McFarland Blvd & US 43	TUSCALOOSA	44,416	557	45.1	35.9%	28,477

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Arkansas

Signals Analyzed: **664**

Signals Analyzed Rank: **41**

Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
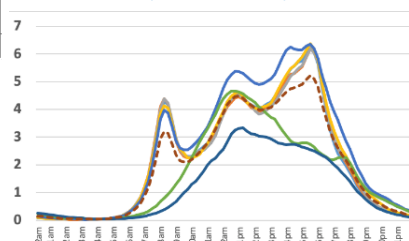
Peak: **Thursday 4:30 – 5:30pm**

Arrival on Green (%)/Hour
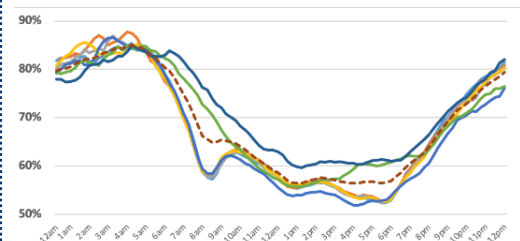
Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service: A = 36%   B = 44%   C = 19%   D+ = 2%

Average Daily VOLUME

844

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **11**
Scaled Crossings/Signal: **16,800**

Weekly PERFORMANCE

15.9

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **27**

Arrival on Green: **60.1%** (US Avg 62.8%; rank: 11)
Stops/Signal/Day: **6,700** (rank: 15)
Hours of Delay/Signal/Day: **74** (rank: 28)

Typical TRIP

2.0%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **50**

Total Travel Time: **17.4 mins** (US Avg 17.0; rank: 18)
Signals Traversed: **1.3 mins** (US Avg 4.1; rank: 49)
Total Signal Delay: **0.34 mins** (US Avg 1.15; rank: 50)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
WASHINGTON	190	15.4	15,062	79	60.8%	1,383,022
PULASKI	124	16.0	7,212	58	61.7%	621,209
BENTON	122	16.9	12,301	101	58.3%	1,092,518
SEBASTIAN	36	13.3	2,319	64	63.4%	229,796
POPE	35	14.9	2,792	80	58.8%	277,483
MILLER	34	16.2	1,514	45	58.7%	139,163
FAULKNER	21	19.1	2,289	109	54.0%	198,193
CRAWFORD	12	10.2	399	33	71.3%	40,217
CRITTENDEN	9	9.2	308	34	70.8%	35,091
GARLAND	8	16.2	656	82	58.8%	60,165

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
N College Ave & E Joyce Blvd	WASHINGTON	51,623	515	35.9	30.4%	35,933
S Walton Blvd & SW 14th St	BENTON	51,021	496	35.0	38.1%	31,560
S Caraway Rd & E Highland Dr	CRAIGHEAD	30,147	430	51.3	24.3%	22,822
Peach Orchard Rd & US 71	BENTON	47,341	385	29.3	44.8%	26,109
Brockington Rd & E Kiehl Ave	PULASKI	35,551	377	38.2	31.7%	24,296
S Shackleford Rd & W Markham St	PULASKI	34,181	350	36.8	33.4%	22,776
S Razorback Rd & W Martin Luther King Blvd	WASHINGTON	43,855	348	28.5	39.8%	26,419
S Maestri Rd & E Henri de Tonti Blvd	WASHINGTON	37,372	336	32.4	44.7%	20,657
SE 14th St & SE J St	BENTON	44,759	335	26.9	44.6%	24,798
W Martin Luther King Jr. Blvd & S Futrall Dr	WASHINGTON	50,170	311	22.3	50.0%	25,082

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Arizona

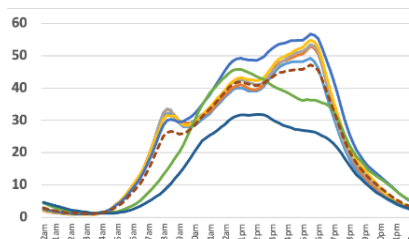Signals Analyzed: **4,818**
Signals Analyzed Rank: **12**
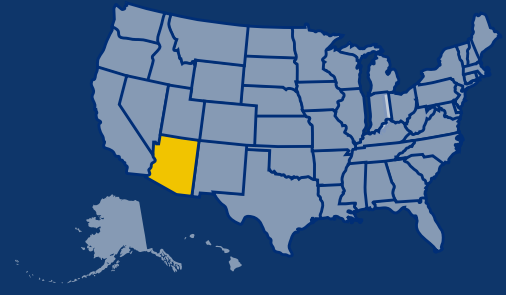
Estimated Crossings/Hour
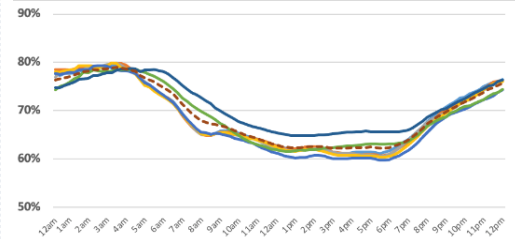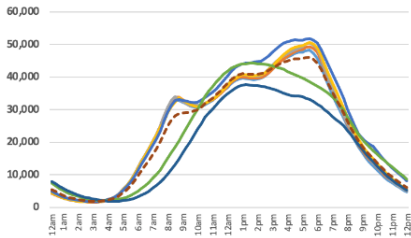(in Thousands)
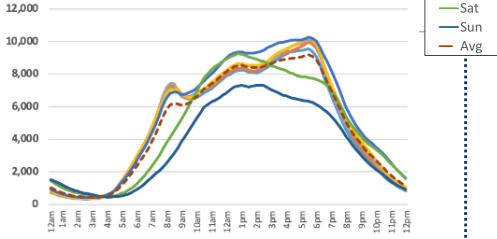
Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:45 – 5:45pm**

Signals by Weekly Average Level of Service:

A = 45%	B = 31%	C = 21%	D+ = 3%

Average Daily VOLUME

768

Observations / Signal
US Average: 619

Scaled Crossings (millions): **117**
Scaled Crossings/Signal: **24,300**

Weekly PERFORMANCE

16.3

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **24**

Arrival on Green: **64.6%** (US Avg 62.8%; rank: 37)
Stops/Signal/Day: **8,600** (rank: 2)
Hours of Delay/Signal/Day: **110** (rank: 3)

Typical TRIP

9.6%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **6**

Total Travel Time: **17.2 mins** (US Avg 17.0; rank: 21)
Signals Traversed: **6.1 mins** (US Avg 4.1; rank: 4)
Total Signal Delay: **1.65 mins** (US Avg 1.15; rank: 7)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MARICOPA	3,845	16.4	439,204	114	65.2%	33,608,573
PIMA	403	18.7	43,791	109	58.2%	3,523,168
PINAL	116	14.3	10,993	95	67.0%	913,545
YUMA	100	15.8	8,736	87	61.0%	774,222
YAVAPAI	96	12.8	8,485	88	65.8%	818,110
COCHISE	66	11.6	2,887	44	65.1%	312,916
MOHAVE	48	11.5	3,730	78	67.9%	374,646
COCONINO	48	19.8	7,606	158	56.8%	598,815
SANTA CRUZ	24	15.9	1,243	52	61.0%	109,590
NAVAJO	24	11.9	1,652	69	65.9%	170,107

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
N 19th Ave & W McDowell Rd	MARICOPA	58,850	961	58.8	26.3%	43,369
W Bell Rd & N 83rd Ave	MARICOPA	87,415	940	38.7	39.1%	53,232
S Rittenhouse Rd & S Ellsworth Loop Rd	MARICOPA	76,012	929	44.0	33.3%	50,714
Grand Ave & W Bethany Home Rd	MARICOPA	67,477	910	48.5	38.9%	41,222
W McDowell Rd & N 99th Ave	MARICOPA	58,876	879	53.7	34.7%	38,422
Grand Ave & W Indian School Rd	MARICOPA	55,977	854	54.9	43.9%	31,402
W Happy Valley Rd & N Lake Pleasant Pkwy	MARICOPA	61,765	845	49.3	31.7%	42,175
E Shea Blvd & N Scottsdale Rd	MARICOPA	68,204	785	41.4	28.2%	48,937
N 67th Ave & W Bell Rd	MARICOPA	75,135	730	35.0	35.2%	48,697
W Happy Valley Rd & N 67th Ave	MARICOPA	65,242	706	38.9	31.9%	44,438

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
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INRIX U.S. Signals Scorecard   **INRIX**

California

Signals Analyzed: **27,527**
Signals Analyzed Rank: **1**

Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
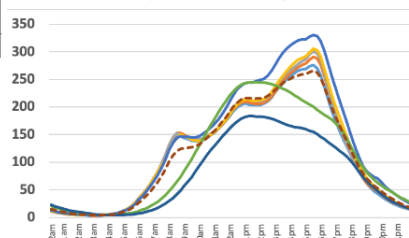
Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour
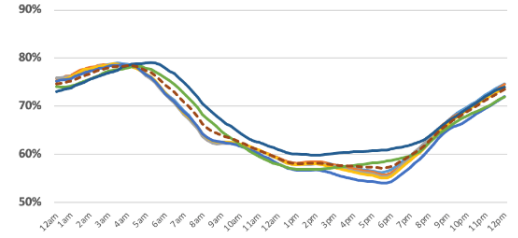
Peak: **Friday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 33%	B = 42%	C = 22%	D+ = 3%

Average Daily VOLUME

473

Observations / Signal
US Average: 619

Scaled Crossings (millions): **565**
Scaled Crossings/Signal: **20,500**

Weekly PERFORMANCE

17.3

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **18**

Arrival on Green: **61.2%** (US Avg 62.8%; rank: 14)
Stops/Signal/Day: **8,000** (rank: 3)
Hours of Delay/Signal/Day: **99** (rank: 6)

Typical TRIP

9.3%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **10**

Total Travel Time: **16.5 mins** (US Avg 17.0; rank: 37)
Signals Traversed: **5.3 mins** (US Avg 4.1; rank: 9)
Total Signal Delay: **1.53 mins** (US Avg 1.15; rank: 10)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
LOS ANGELES	9,568	17.9	1,037,659	108	61.1%	81,205,673
ORANGE	2,835	17.3	346,764	122	63.1%	26,515,187
SAN DIEGO	2,431	17.5	230,845	95	60.7%	18,677,449
SANTA CLARA	1,622	18.2	112,774	70	59.5%	9,020,219
RIVERSIDE	1,433	15.4	142,349	99	63.5%	12,128,183
SAN BERNARDINO	1,223	18.0	137,971	113	58.8%	11,391,445
SAN FRANCISCO	1,182	17.9	97,986	83	63.3%	7,228,791
ALAMEDA	1,073	17.5	60,221	56	58.9%	5,080,832
CONTRA COSTA	752	15.7	63,890	85	63.3%	5,386,716
SAN MATEO	544	17.4	44,868	82	60.3%	3,678,963

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
Newhall Ranch Rd & Bouquet Canyon Rd	LOS ANGELES	120,293	1,260	37.7	36.4%	76,558
Newport Blvd & W 19th St	ORANGE	117,229	1,142	35.1	47.8%	61,213
Winchester Rd & Ynez Rd	RIVERSIDE	96,296	1,081	40.4	33.7%	63,834
Edinger Ave & Beach Blvd	ORANGE	104,059	1,011	35.0	46.3%	55,831
Valencia Blvd & Bouquet Canyon Rd	LOS ANGELES	96,375	1,006	37.6	33.4%	64,167
Newport Blvd & E 17th St	ORANGE	104,939	993	34.1	42.1%	60,786
Firestone Blvd & Garfield Ave	LOS ANGELES	69,262	993	51.6	29.5%	48,803
San Luis Rey Mission Expwy & College Blvd	SAN DIEGO	78,434	969	44.5	36.3%	49,933
Crenshaw Blvd & W Sepulveda Blvd	LOS ANGELES	84,557	967	41.2	35.0%	54,983
W Imperial Hwy & S Beach Blvd	ORANGE	85,367	948	40.0	40.5%	50,789

Notes:

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- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
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Colorado

Signals Analyzed: **4,455**
Signals Analyzed Rank: **16**

Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
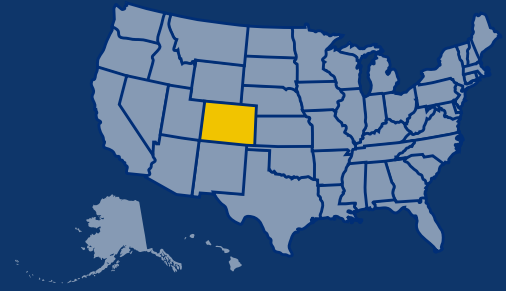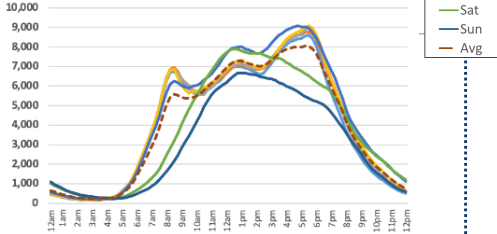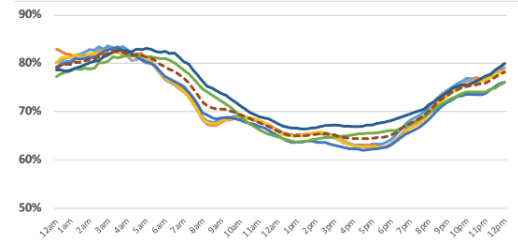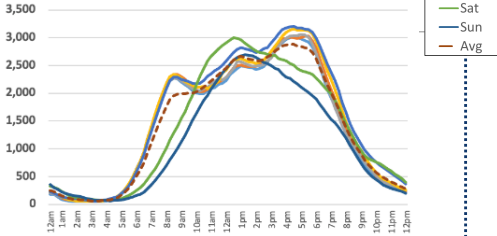
Peak: **Friday 3:45 – 4:45pm**

Total Hours Delay/Hour
(in Thousands)
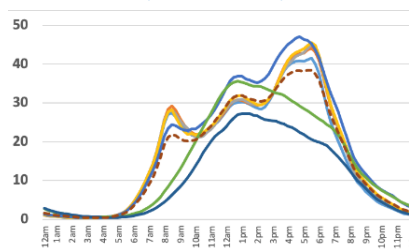
Peak: **Friday 3:45 – 4:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

A = 43%	B = 39%	C = 16%	D+ = 2%

Average Daily VOLUME

451

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **97**
Scaled Crossings/Signal: **21,800**

Weekly PERFORMANCE

14.7

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **42**

Arrival on Green: **67.6% (US Avg 62.8%; rank: 48)**
Stops/Signal/Day: **7,100 (rank: 12)**
Hours of Delay/Signal/Day: **89 (rank: 11)**

Typical TRIP

7.2%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **14**

Total Travel Time: **18.0 mins (US Avg 17.0; rank: 10)**
Signals Traversed: **5.3 mins (US Avg 4.1; rank: 8)**
Total Signal Delay: **1.30 mins (US Avg 1.15; rank: 12)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
DENVER	1,143	15.6	87,277	76	68.0%	6,438,919
EL PASO	634	15.2	65,362	103	65.8%	5,318,867
ARAPAHOE	499	14.6	55,019	110	68.4%	4,293,396
ADAMS	428	16.2	47,439	111	65.3%	3,668,671
JEFFERSON	425	13.8	37,917	89	68.9%	3,067,886
DOUGLAS	273	13.0	29,631	109	69.5%	2,499,937
BOULDER	228	12.8	14,577	64	69.7%	1,245,865
LARIMER	165	13.1	12,903	78	69.5%	1,083,889
PUEBLO	155	14.8	9,427	61	65.3%	795,003
WELD	149	16.8	14,804	99	60.7%	1,243,666

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
N Academy Blvd & Austin Bluffs Pkwy	EL PASO	92,710	1,140	44.3	25.9%	68,686
S Parker Rd & Hess Rd	DOUGLAS	98,515	955	34.9	43.6%	55,543
E Hampden Ave & S University Blvd	ARAPAHOE	75,372	861	41.1	24.2%	57,154
N Powers Blvd & Barnes Rd	EL PASO	84,387	805	34.3	51.8%	40,671
Austin Bluffs Pkwy & N Nevada Ave	EL PASO	84,485	801	34.1	31.9%	57,495
S Parker Rd & S Twenty Mile Rd	DOUGLAS	80,026	796	35.8	40.6%	47,564
US 34;CR 56 & 35th Ave	WELD	67,144	795	42.6	36.4%	42,721
E Arapahoe Rd	ARAPAHOE	85,957	783	32.8	49.2%	43,699
S Santa Fe Dr & W Dartmouth Ave	ARAPAHOE	93,487	774	29.8	48.4%	48,246
S Academy Blvd & E Fountain Blvd	EL PASO	79,687	699	31.6	31.4%	54,656

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Connecticut

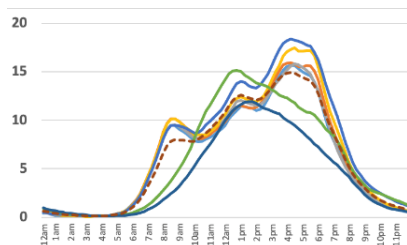Signals Analyzed: **2,440**
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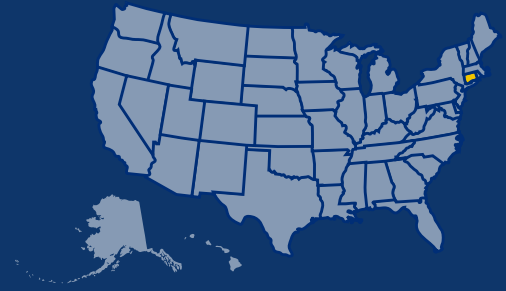
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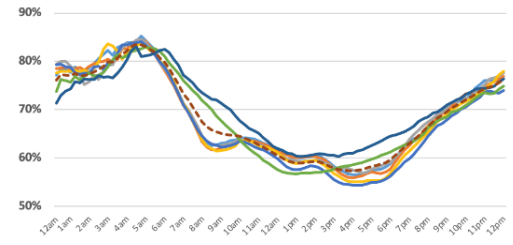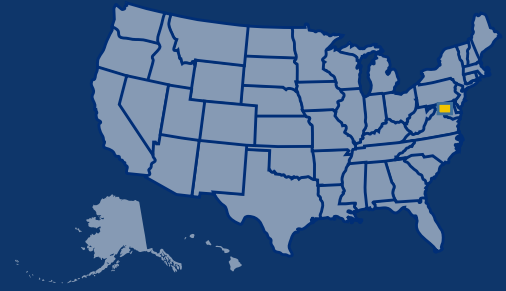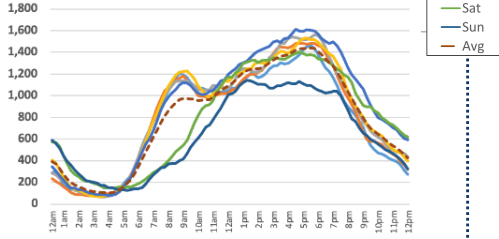### (in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:15 – 4:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:00 – 4:00pm**

Signals by Weekly Average Level of Service:

| A = 33% | B = 50% | C = 16% | D+ = 1% |

Average Daily VOLUME

731

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **38**
Scaled Crossings/Signal: **15,700**

Weekly PERFORMANCE

14.8

Seconds Delay / Vehicle
US Average: **16.9** Rank: **40**

Arrival on Green: **62.5%** (US Avg 62.8%; rank: 23)
Stops/Signal/Day: **5,900** (rank: 31)
Hours of Delay/Signal/Day: **64** (rank: 40)

Typical TRIP

10.1%

% Time Stopped at Signals
US Average: **6.8%** Rank: **5**

Total Travel Time: **16.4 mins** (US Avg 17.0; rank: 39)
Signals Traversed: **6.7 mins** (US Avg 4.1; rank: 2)
Total Signal Delay: **1.65 mins** (US Avg 1.15; rank: 5)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
NEW HAVEN	672	15.8	54,095	80	61.5%	4,748,331
HARTFORD	585	12.9	28,440	49	64.9%	2,792,283
FAIRFIELD	503	14.6	30,080	60	61.8%	2,836,759
NEW LONDON	321	16.1	22,794	71	61.2%	1,976,263
MIDDLESEX	134	15.6	9,997	75	61.0%	900,576
LITCHFIELD	83	13.5	3,962	48	65.0%	370,817
WINDHAM	82	13.6	5,158	63	63.3%	503,085
TOLLAND	56	12.0	2,569	46	67.3%	252,924
WESTCHESTER	4	17.7	228	57	60.5%	18,339

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
West North St & Adams Ave	FAIRFIELD	63,647	651	36.8	41.3%	37,347
Greyrock Place & Main St	FAIRFIELD	68,489	586	30.8	38.6%	42,070
Foxon Blvd & Quinnipiac Ave	NEW HAVEN	58,061	573	35.5	32.1%	39,424
Neck Rd	NEW LONDON	50,719	561	39.9	28.2%	36,410
Stillwater Rd	FAIRFIELD	36,628	533	52.4	30.9%	25,321
Crystal Ave & State Pier Rd	NEW LONDON	56,955	515	32.5	38.8%	34,832
Prospect St & Edwards St	NEW HAVEN	51,028	513	36.2	36.3%	32,486
Orchard St & Goffe St	NEW HAVEN	53,670	502	33.7	40.3%	32,029
Farmington Ave	HARTFORD	54,056	461	30.7	37.2%	33,938
Union St	NEW HAVEN	46,302	457	35.5	35.1%	30,061

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

D.C.

Signals Analyzed: **1,113**
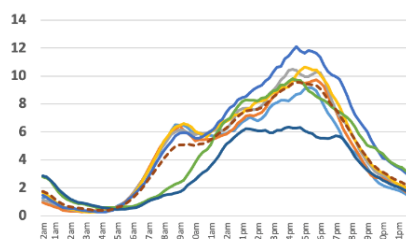Signals Analyzed Rank: **35**

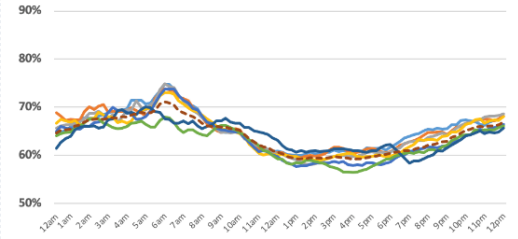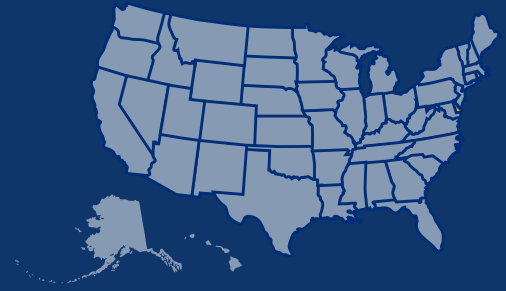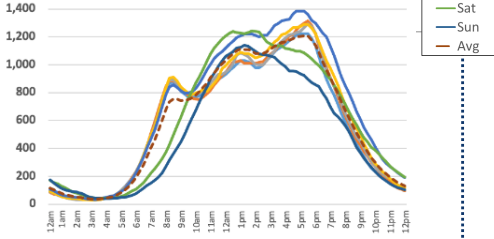## Estimated Crossings/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Arrival on Green (%)/Hour

Peak: **Saturday 3:00 – 4:00pm**

Signals by Weekly Average Level of Service: A = 8% | B = 46% | C = 41% | D+ = 5%

Average Daily VOLUME

304

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **19**
Scaled Crossings/Signal: **17,400**

Weekly PERFORMANCE

20.4

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **2**

Arrival on Green: **63.4%** (US Avg 62.8%; rank: 26)
Stops/Signal/Day: **6,400** (rank: 22)
Hours of Delay/Signal/Day: **98** (rank: 7)

Typical TRIP

21.8%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **1**

Total Travel Time: **21.9 mins** (US Avg 17.0; rank: 1)
Signals Traversed: **14.0 mins** (US Avg 4.1; rank: 1)
Total Signal Delay: **4.76 mins** (US Avg 1.15; rank: 1)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
Not Applicable						

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
US 1 Alternate & Bladensburg Rd NE	DC	90,392	914	36.4	43.4%	51,121
New York Ave NW & 4th St NW	DC	60,025	740	44.4	49.7%	30,189
New York Ave NW & New Jersey Ave NW	DC	60,788	739	43.7	45.4%	33,184
Missouri Ave NW & North Capitol St NW	DC	54,846	618	40.6	46.2%	29,519
Minnesota Ave SE & Pennsylvania Ave SE	DC	76,059	554	26.2	54.6%	34,550
New York Ave NW	DC	45,257	548	43.6	51.3%	22,029
Stanton Rd SE & Suitland Pkwy	DC	71,962	517	25.9	52.3%	34,316
1st St NW & New York Ave NW	DC	42,205	485	41.4	52.5%	20,052
Pennsylvania Ave SE	DC	66,592	472	25.5	58.8%	27,445
West Virginia Ave NE & Montana Ave NE	DC	44,257	423	34.4	48.2%	22,944

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
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INRIX U.S. Signals Scorecard   **INRIX**

Delaware

Signals Analyzed: **889**
Signals Analyzed Rank: **37**

Estimated Crossings/Hour
(in Thousands)

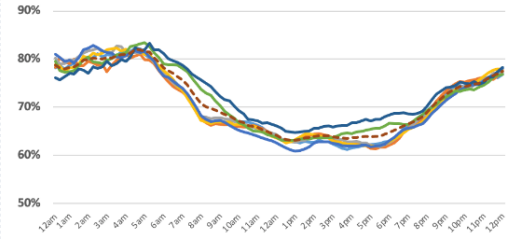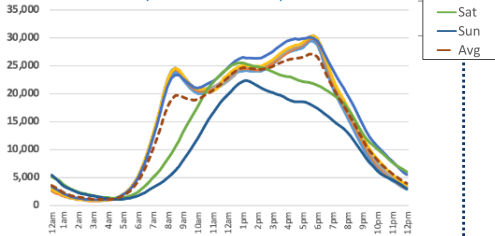Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 4:00 – 5:00pm**

Total Hours Delay/Hour
(in Thousands)
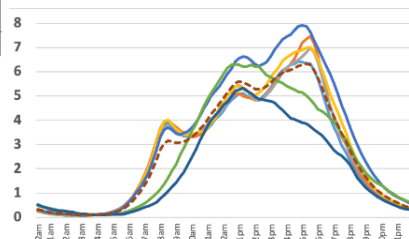
Peak: **Friday 4:00 – 5:00pm**

Arrival on Green (%)/Hour

Peak: **Friday 11:00 – 12:00pm**

Signals by Weekly Average Level of Service:

A = 33%	B = 42%	C = 21%	D+ = 4%

Average Daily VOLUME

631

Observations / Signal
US Average: 619

Scaled Crossings (millions): **15**
Scaled Crossings/Signal: **16,300**

Weekly PERFORMANCE

16.3

Seconds Delay / Vehicle
US Average: 16.9   Rank: 23

Arrival on Green: **66.2%** (US Avg 62.8%; rank: 46)
Stops/Signal/Day: **5,500** (rank: 41)
Hours of Delay/Signal/Day: **74** (rank: 29)

Typical TRIP

8.2%

% Time Stopped at Signals
US Average: 6.8%   Rank: 11

Total Travel Time: **17.2 mins** (US Avg 17.0; rank: 22)
Signals Traversed: **5.2 mins** (US Avg 4.1; rank: 10)
Total Signal Delay: **1.41 mins** (US Avg 1.15; rank: 11)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
NEW CASTLE	626	15.8	39,352	63	67.7%	2,897,489
SUSSEX	151	16.7	14,766	98	64.7%	1,126,513
KENT	102	18.2	11,159	109	62.2%	836,480

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
Frenchtown Rd	NEW CASTLE	74,024	1,060	51.6	33.1%	49,503
Pulaski Hwy & Bear Corbitt Rd	NEW CASTLE	47,881	517	38.9	38.4%	29,509
Lewes Georgetown Hwy & Coastal Hwy	SUSSEX	55,771	479	30.9	44.5%	30,978
Bridgeville Rd	SUSSEX	42,223	464	39.5	44.5%	23,449
E Lebanon Rd & S Dupont Hwy	KENT	54,863	435	28.5	56.2%	24,005
Chapel St & Old Baltimore Pike	NEW CASTLE	29,675	430	52.2	32.7%	19,985
Coastal Hwy & Dartmouth Dr	SUSSEX	49,842	415	30.0	50.3%	24,789
Line Rd	SUSSEX	35,469	413	41.9	36.0%	22,695
N Dupont Hwy	KENT	40,412	396	35.3	42.7%	23,153
Miller Rd	SUSSEX	58,381	390	24.0	57.7%	24,685

Notes:

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Florida

Signals Analyzed: **15,327**
Signals Analyzed Rank: **4**

Estimated Crossings/Hour
(in Thousands)

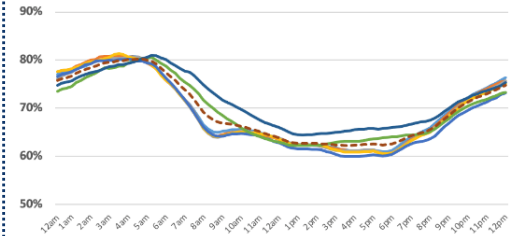Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Wednesday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)
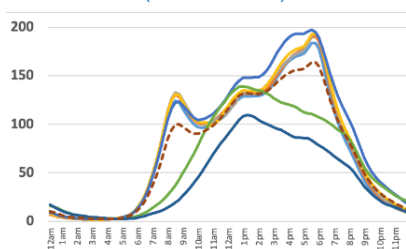
Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 2:45 – 3:45pm**

Signals by Weekly Average Level of Service:

A = 33%	B = 39%	C = 23%	D+ = 6%

Average Daily VOLUME

831

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **343**
Scaled Crossings/Signal: **22,400**

Weekly PERFORMANCE

18.2

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **6**

Arrival on Green: **64.9%** (US Avg 62.8%; rank: 39)
Stops/Signal/Day: **7,900** (rank: 6)
Hours of Delay/Signal/Day: **113** (rank: 2)

Typical TRIP

11.3%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **2**

Total Travel Time: **17.3 mins** (US Avg 17.0; rank: 20)
Signals Traversed: **6.5 mins** (US Avg 4.1; rank: 3)
Total Signal Delay: **1.96 mins** (US Avg 1.15; rank: 2)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MIAMI-DADE	2,438	22.0	313,379	129	61.9%	19,549,501
BROWARD	1,285	19.5	172,952	135	64.8%	11,232,195
ORANGE	1,241	18.6	130,582	105	64.4%	8,973,702
PALM BEACH	1,053	17.6	124,970	119	65.3%	8,865,573
HILLSBOROUGH	1,009	19.5	116,974	116	64.4%	7,679,270
DUVAL	985	16.4	91,796	93	66.8%	6,694,373
PINELLAS	665	18.3	69,776	105	66.6%	4,581,792
POLK	505	17.2	53,813	107	64.4%	3,995,762
BREVARD	451	16.1	42,045	93	66.1%	3,193,324
VOLUSIA	405	17.4	44,464	110	64.0%	3,316,009

Daily Average of Signals with Largest Total Delay

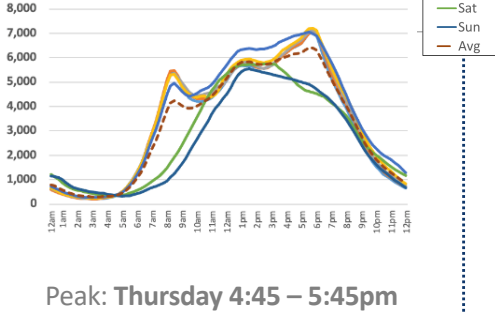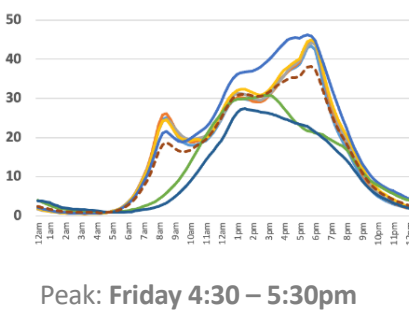| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Land O' Lakes Blvd & FL 54	PASCO	76,195	1,298	61.3	27.5%	55,235
SW 152nd St & SW 137th Ave	MIAMI-DADE	76,259	1,219	57.5	30.8%	52,778
Gibsonton Dr & US 301	HILLSBOROUGH	67,959	1,092	57.9	32.9%	45,571
Santa Barbara Blvd & Vets Mem Pkwy	LEE	83,148	1,061	45.9	38.1%	51,435
Emerald Coast Pkwy & Hutchinson St	OKALOOSA	97,621	1,051	38.8	49.8%	48,982
Federal Hwy & East Commercial Blvd	BROWARD	62,302	1,049	60.6	28.7%	44,433
SW 117th Ave & SW 152nd St	MIAMI-DADE	66,164	1,025	55.8	33.7%	43,891
North Davis Hwy & Airport Blvd	ESCAMBIA	62,285	986	57.0	45.3%	34,060
East Palm Dr & Dixie Hwy	MIAMI-DADE	57,910	981	61.0	32.5%	39,067
John Young Pkwy & West Vine St	OSCEOLA	59,272	981	59.6	36.3%	37,757

Notes:

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➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Georgia

Signals Analyzed: **4,670**
Signals Analyzed Rank: **14**
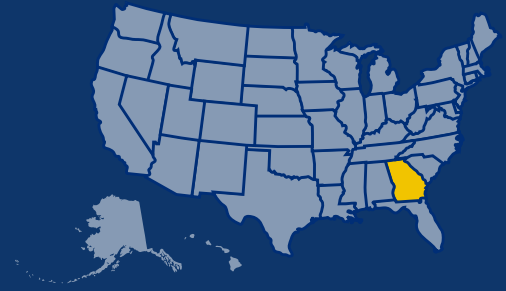
Estimated Crossings/Hour
(in Thousands)

Peak: **Thursday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**
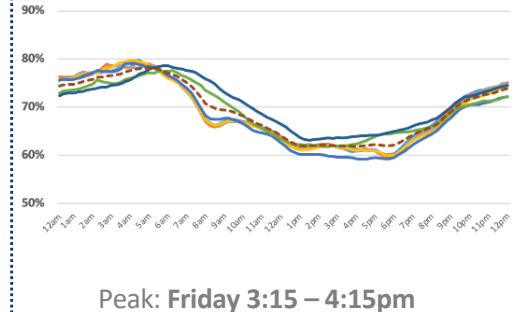
Signals by Weekly Average Level of Service:

A = 34%	B = 39%	C = 23%	D+ = 5%

Average Daily VOLUME

647

Observations / Signal
US Average: 619

Scaled Crossings (millions): **79**
Scaled Crossings/Signal: **16,900**

Weekly PERFORMANCE

17.4

Seconds Delay / Vehicle
US Average: 16.9   Rank: 14

Arrival on Green: **65.2% (US Avg 62.8%; rank: 43)**
Stops/Signal/Day: **7,900 (rank: 6)**
Hours of Delay/Signal/Day: **81 (rank: 15)**

Typical TRIP

4.8%

% Time Stopped at Signals
US Average: 6.8%   Rank: 32

Total Travel Time: **18.7 mins (US Avg 17.0; rank: 3)**
Signals Traversed: **3.1 mins (US Avg 4.1; rank: 32)**
Total Signal Delay: **0.89 mins (US Avg 1.15; rank: 25)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
FULTON	779	19.8	59,273	76	63.1%	3,979,378
COBB	675	16.1	58,850	87	69.1%	4,062,275
DEKALB	632	17.7	39,262	62	64.9%	2,800,328
GWINNETT	359	19.0	46,900	131	66.1%	3,004,412
RICHMOND	168	15.6	10,766	64	67.4%	807,571
BIBB	159	16.0	8,885	56	64.3%	711,700
CLARKE	129	17.2	8,991	70	63.4%	687,584
CHEROKEE	96	15.9	10,227	107	68.2%	737,030
MUSCOGEE	95	16.6	6,279	66	61.7%	520,107
CHATHAM	91	17.8	6,418	71	63.1%	478,297

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
Cobb Pkwy & Barrett Pkwy	COBB	56,117	850	54.5	36.6%	35,601
Buford Dr & Peachtree Industrial Blvd	GWINNETT	65,368	849	46.7	33.0%	43,786
Joel Cowan Pkwy & W Lanier Ave	FAYETTE	63,844	809	45.6	37.7%	39,750
Buford Dr & Gravel Springs Rd	GWINNETT	69,998	701	36.1	50.4%	34,751
State Bridge Rd & Medlock Bridge Rd	FULTON	62,401	686	39.6	44.9%	34,362
US 19;GA 400 & Browns Bridge Rd	FORSYTH	59,803	681	41.0	46.6%	31,952
Market Place Blvd & Buford Hwy	FORSYTH	54,941	665	43.6	40.3%	32,789
Dallas Hwy & Ernest W. Barrett Pkwy NW	COBB	53,878	663	44.3	39.9%	32,366
E E Butler Pkwy & Jesse Jewell Pkwy SE	HALL	55,412	652	42.4	39.2%	33,673
Lost Mountain Rd & Dallas Hwy	COBB	58,712	632	38.7	45.8%	31,801

Notes:

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INRIX U.S. Signals Scorecard   **INRIX**

Hawaii

Signals Analyzed: **603**
Signals Analyzed Rank: **43**

Estimated Crossings/Hour
(in Thousands)

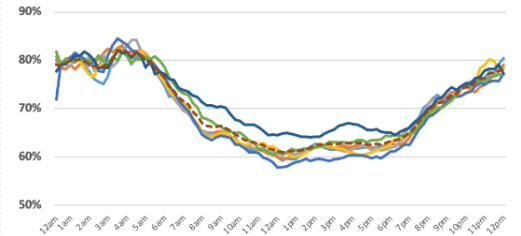Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
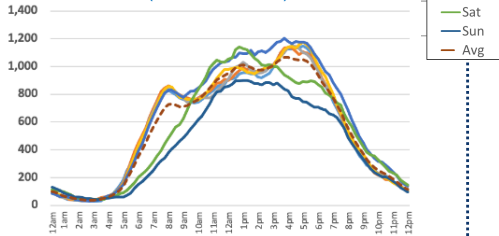
Peak: **Friday 2:45 – 3:45pm**

Total Hours Delay/Hour
(in Thousands)
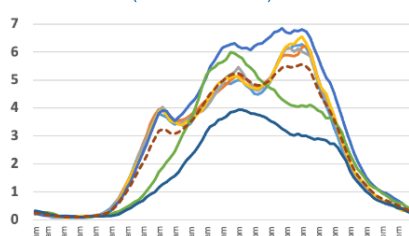
Peak: **Friday 2:45 – 3:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 11:00 – 12:00pm**

Signals by Weekly Average Level of Service:

| A = 29% | B = 47% | C = 21% | D+ = 3% |

Average Daily VOLUME

321

Observations / Signal
US Average: 619

Scaled Crossings (millions): **14**
Scaled Crossings/Signal: **22,500**

Weekly PERFORMANCE

16.5

Seconds Delay / Vehicle
US Average: 16.9   Rank: 22

Arrival on Green: **64.5%** (US Avg 62.8%; rank: 36)
Stops/Signal/Day: **8,000** (rank: 4)
Hours of Delay/Signal/Day: **103** (rank: 4)

Typical TRIP

6.8%

% Time Stopped at Signals
US Average: 6.8%   Rank: 15

Total Travel Time: **16.1 mins** (US Avg 17.0; rank: 44)
Signals Traversed: **4.0 mins** (US Avg 4.1; rank: 18)
Total Signal Delay: **1.09 mins** (US Avg 1.15; rank: 17)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HONOLULU	463	16.8	53,857	116	65.2%	4,011,909
HAWAII	80	14.9	4,881	61	59.2%	480,792
MAUI	44	13.9	2,482	56	62.9%	237,790
KAUAI	16	14.3	937	59	62.7%	87,861

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
Fort Weaver Rd & State Hwy 764	HONOLULU	60,429	739	44.0	41.0%	35,632
Farrington Hwy & Makakilo Dr	HONOLULU	55,797	690	44.5	41.2%	32,818
Likelike Hwy & North School St	HONOLULU	56,907	681	43.1	42.1%	32,950
Kapolei Pkwy & Kalaeloa Blvd	HONOLULU	47,582	630	47.6	29.2%	33,711
Kamehameha Hwy & Likelike Hwy	HONOLULU	38,748	566	52.6	27.4%	28,123
Nimitz Hwy & Kalihi St	HONOLULU	69,705	496	25.6	58.4%	29,024
Kamehameha Hwy	HONOLULU	52,282	480	33.1	46.3%	28,076
Kamehameha Hwy & Lehua Ave	HONOLULU	32,313	461	51.4	32.6%	21,775
Moanalua Rd & Kaahumanu St	HONOLULU	39,069	446	41.1	26.6%	28,677
Liliha St & North King St	HONOLULU	36,189	441	43.9	32.2%	24,547

Notes:

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➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Iowa

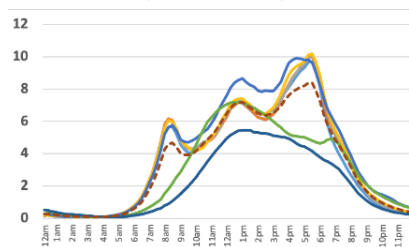Signals Analyzed: **1,752**
Signals Analyzed Rank: **29**
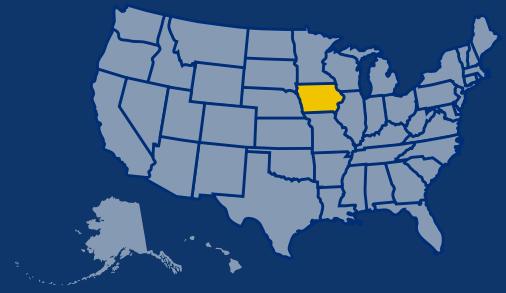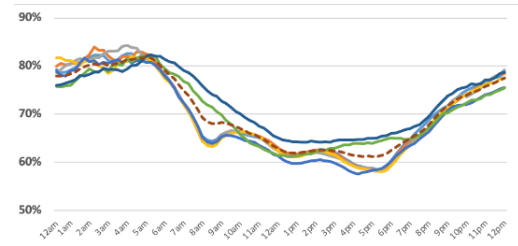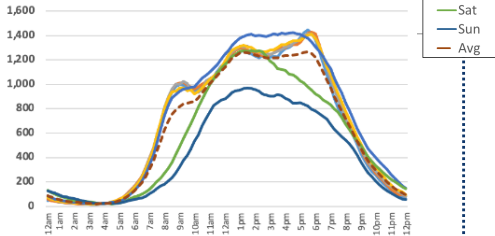
Estimated Crossings/Hour
(in Thousands)
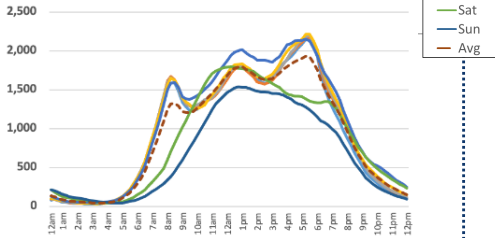
Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Thursday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 42%   B = 49%   C = 9%   D+ = 1%

Average Daily VOLUME

660

Observations / Signal
US Average: 619

Scaled Crossings (millions): **22**
Scaled Crossings/Signal: **12,800**

Weekly PERFORMANCE

13.2

Seconds Delay / Vehicle
US Average: 16.9   Rank: 49

Arrival on Green: **64.4%** (US Avg 62.8%; rank: 35)
Stops/Signal/Day: **4,600** (rank: 51)
Hours of Delay/Signal/Day: **47** (rank: 51)

Typical TRIP

3.4%

% Time Stopped at Signals
US Average: 6.8%   Rank: 43

Total Travel Time: **15.8 mins** (US Avg 17.0; rank: 49)
Signals Traversed: **2.4 mins** (US Avg 4.1; rank: 41)
Total Signal Delay: **0.53 mins** (US Avg 1.15; rank: 43)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
POLK	479	13.5	26,590	56	64.5%	2,509,783
LINN	204	12.9	9,876	48	65.9%	939,296
SCOTT	160	13.9	9,764	61	67.2%	831,762
JOHNSON	117	14.7	5,817	50	60.3%	566,590
WOODBURY	100	12.8	2,823	28	64.2%	283,767
BLACK HAWK	82	12.7	3,026	37	60.1%	343,877
POTTAWATTAMIE	76	11.2	2,998	39	67.6%	313,330
DUBUQUE	63	14.4	2,887	46	58.6%	299,708
STORY	47	15.5	3,078	65	57.2%	306,272
DALLAS	41	12.9	2,301	56	66.3%	216,454

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
SE Delaware Ave & SE Oralabor Rd	POLK	49,847	513	37.0	32.6%	33,585
E 53rd St & Elmore Ave	SCOTT	46,309	447	34.8	34.5%	30,334
1st Ave & 2nd St	JOHNSON	35,701	352	35.5	33.8%	23,638
Hickman Rd & 100th St	POLK	36,488	323	31.9	39.7%	22,016
E 1st St & NE Delaware Ave	POLK	32,162	306	34.3	30.9%	22,228
E Kimberly Rd & Eastern Ave	SCOTT	39,005	297	27.4	43.2%	22,140
W 1st St & S Ankeny Blvd	POLK	34,560	286	29.8	34.0%	22,818
Brady St & E Kimberly Rd	SCOTT	48,913	284	20.9	54.3%	22,333
N Division St & W Locust St	SCOTT	19,142	283	53.2	22.0%	14,923
Hickman Rd & NW 128th St	POLK	42,975	272	22.7	47.7%	22,473

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Idaho

Signals Analyzed: **798**

Signals Analyzed Rank: **39**

Estimated Crossings/Hour
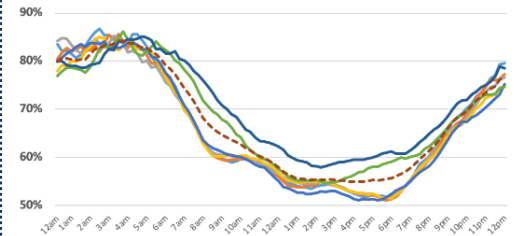### (in Thousands)

Peak: **Monday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
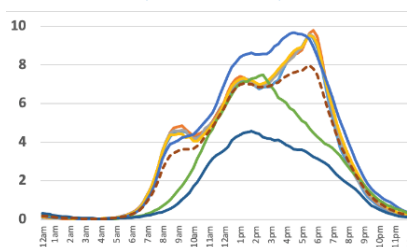
Peak: **Tuesday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:15 – 5:15pm**

Signals by Weekly Average Level of Service:

A = 30%	B = 46%	C = 20%	D+ = 4%

Average Daily VOLUME

486

Observations / Signal

US Average: 619

Scaled Crossings (millions): **15**
Scaled Crossings/Signal: **19,100**

Weekly PERFORMANCE

18.0

Seconds Delay / Vehicle

US Average: 16.9   Rank: 9

Arrival on Green: **58.7%** (US Avg 62.8%; rank: 6)
Stops/Signal/Day: **7,900** (rank: 5)
Hours of Delay/Signal/Day: **95** (rank: 9)

Typical TRIP

5.2%

% Time Stopped at Signals

US Average: 6.8%   Rank: 26

Total Travel Time: **16.8 mins** (US Avg 17.0; rank: 28)
Signals Traversed: **2.9 mins** (US Avg 4.1; rank: 34)
Total Signal Delay: **0.88 mins** (US Avg 1.15; rank: 27)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
ADA	352	17.8	34,003	97	62.5%	2,581,012
KOOTENAI	112	17.6	10,711	96	54.5%	998,651
CANYON	78	21.8	9,378	120	51.9%	745,255
BONNEVILLE	74	19.3	9,215	125	57.2%	737,461
TWIN FALLS	40	19.2	4,491	112	53.0%	396,708
NEZ PERCE	32	12.2	1,596	50	63.9%	170,655
BANNOCK	20	17.9	1,779	89	56.7%	155,073
LATAH	17	15.9	1,138	67	58.2%	107,578
MADISON	16	14.9	1,021	64	59.1%	101,119
CASSIA	13	13.5	673	52	62.4%	67,583

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
S Eagle Rd & E Overland Rd	ADA	57,268	669	42.1	36.2%	36,515
W Karcher Rd & Caldwell Blvd	CANYON	43,518	631	52.2	32.5%	29,389
N Eagle Rd & E Franklin Rd	ADA	74,294	606	29.4	57.8%	31,330
W Franklin Rd	ADA	64,562	583	32.5	41.2%	37,969
Pole Line Rd W & Blue Lakes Blvd N	TWIN FALLS	37,698	574	54.8	25.3%	28,151
S 25th E & E 17th St	BONNEVILLE	46,473	572	44.3	30.7%	32,221
S Meridian Rd & E Overland Rd	ADA	52,521	533	36.6	39.7%	31,677
S Cole Rd & Overland Rd	ADA	40,563	487	43.2	34.1%	26,740
S Holmes Ave & E 17th St	BONNEVILLE	47,771	479	36.1	32.4%	32,308
S Eagle Rd & ID 55	ADA	58,355	471	29.0	54.4%	26,594

Notes:

- The methodology used to generate results shown is detailed in Appendix A of the Scorecard
- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
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INRIX U.S. Signals Scorecard

INRIX

Illinois

Signals Analyzed: **9,402**

Signals Analyzed Rank: **5**

Estimated Crossings/Hour
(in Thousands)

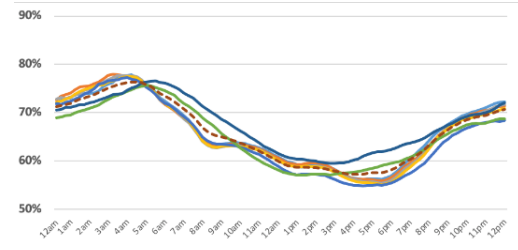Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
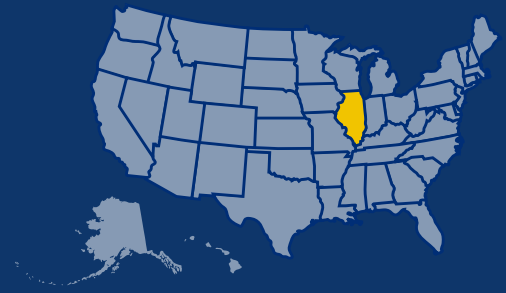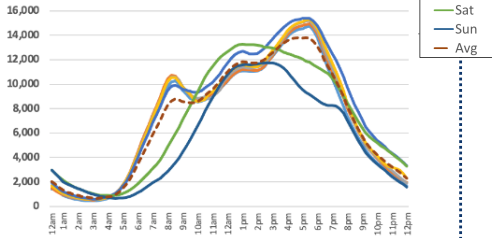
Peak: **Friday 4:15 – 5:15pm**

Total Hours Delay/Hour
(in Thousands)
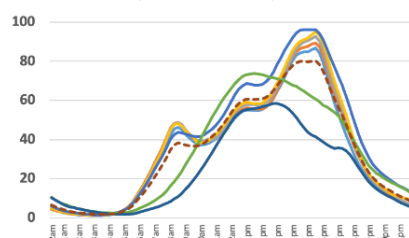
Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

| A = 29% | B = 44% | C = 24% | D+ = 3% |

Average Daily VOLUME

824

Observations / Signal

US Average: **619**

Scaled Crossings (millions): **172**
Scaled Crossings/Signal: **18,200**

Weekly PERFORMANCE

17.3

Seconds Delay / Vehicle

US Average: **16.9**   Rank: **16**

Arrival on Green: **61.3%** (US Avg 62.8%; rank: 15)
Stops/Signal/Day: **7,100** (rank: 11)
Hours of Delay/Signal/Day: **88** (rank: 12)

Typical TRIP

9.4%

% Time Stopped at Signals

US Average: **6.8%**   Rank: **8**

Total Travel Time: **16.8 mins** (US Avg 17.0; rank: 31)
Signals Traversed: **5.5 mins** (US Avg 4.1; rank: 6)
Total Signal Delay: **1.58 mins** (US Avg 1.15; rank: 8)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
COOK	5,196	19.4	507,421	98	58.2%	39,474,069
DUPAGE	742	16.3	79,212	107	65.2%	6,068,170
LAKE	615	14.1	49,006	80	66.2%	4,228,567
WILL	426	15.5	41,180	97	63.9%	3,453,825
KANE	371	15.2	33,128	89	64.3%	2,792,520
WINNEBAGO	268	14.5	14,625	55	64.3%	1,294,210
ROCK ISLAND	206	12.8	7,816	38	66.0%	745,855
ST CLAIR	167	14.6	12,207	73	64.9%	1,060,448
MCHENRY	166	15.8	16,973	102	63.7%	1,401,410
MCLEAN	129	10.5	4,127	32	72.8%	384,798

Daily Average of Signals with Largest Total Delay

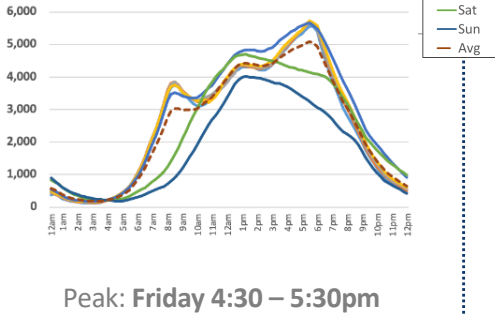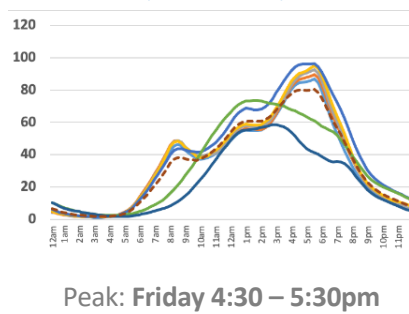| Name	County	ADT	DHD	D/V	AOG (%)	Stops
N Ave & Kingery Hwy	DUPAGE	72,366	954	47.5	30.3%	50,425
W 95th St & S Cicero Ave	COOK	69,977	927	47.7	25.7%	52,004
Cicero Ave & W 127th St	COOK	61,380	765	44.8	30.9%	42,413
Archer Ave & S Harlem Ave	COOK	58,777	738	45.2	28.7%	41,925
N 1st Ave & North Ave	COOK	62,139	734	42.5	33.8%	41,109
Kingery Hwy & W 22nd St	DUPAGE	64,150	723	40.6	38.3%	39,579
E 95th St & S Stony Island Ave	COOK	53,890	714	47.7	31.0%	37,198
W 95th St & S Wern Ave	COOK	45,691	680	53.6	21.5%	35,875
S Cicero Ave & W 55th St	COOK	58,162	680	42.1	28.5%	41,558
W Saint Charles Rd	DUPAGE	62,233	663	38.4	43.7%	35,060

Notes:

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- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
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- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Indiana

Signals Analyzed: **3,799**
Signals Analyzed Rank: **19**
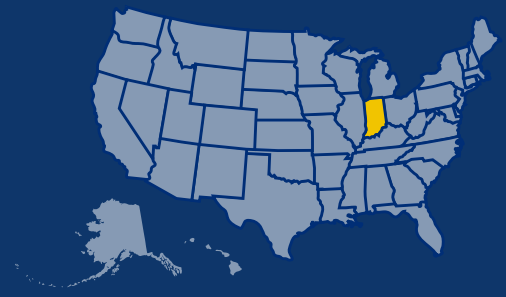
Estimated Crossings/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:45 – 4:45pm**

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
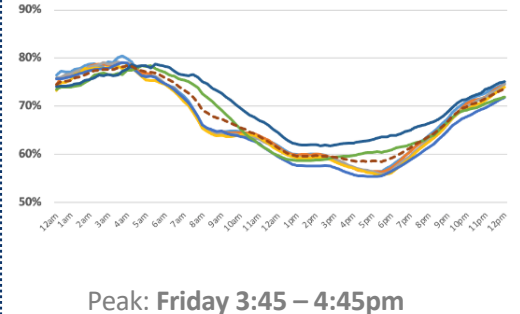
Signals by Weekly Average Level of Service:

A = 35%   B = 48%   C = 16%   D+ = 2%

Average Daily VOLUME

731

Observations / Signal
US Average: 619

Scaled Crossings (millions): **60**
Scaled Crossings/Signal: **15,800**

Weekly PERFORMANCE

14.9

Seconds Delay / Vehicle
US Average: 16.9   Rank: 36

Arrival on Green: **62.4%** (US Avg 62.8%; rank: 22)
Stops/Signal/Day: **5,900** (rank: 30)
Hours of Delay/Signal/Day: **66** (rank: 38)

Typical TRIP

4.8%

% Time Stopped at Signals
US Average: 6.8%   Rank: 31

Total Travel Time: **16.7 mins** (US Avg 17.0; rank: 34)
Signals Traversed: **3.2 mins** (US Avg 4.1; rank: 30)
Total Signal Delay: **0.81 mins** (US Avg 1.15; rank: 31)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MARION	538	15.8	35,428	66	62.1%	3,059,196
LAKE	440	15.7	35,385	80	64.0%	2,924,189
ALLEN	401	13.0	24,032	60	66.5%	2,234,575
ST JOSEPH	351	16.2	21,012	60	59.6%	1,889,550
ELKHART	210	15.3	10,811	51	60.1%	1,017,866
VANDERBURGH	198	14.9	11,928	60	60.2%	1,142,737
TIPPECANOE	186	14.5	11,674	63	61.6%	1,110,952
MADISON	150	12.9	6,497	43	63.7%	657,212
VIGO	127	13.7	8,070	64	64.9%	745,947
DELAWARE	126	12.9	5,898	47	62.5%	617,127

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W Lincoln Hwy & Wicker Ave	LAKE	70,209	859	44.1	30.4%	48,848
Lima Rd & W Coliseum Blvd	ALLEN	57,891	663	41.2	27.6%	41,910
W Lloyd Expwy & St Joseph Ave	VANDERBURGH	63,647	651	36.8	41.3%	37,347
Broadway & W 81st Ave	LAKE	63,808	633	35.7	39.7%	38,445
W 81st Ave & Main St	LAKE	65,464	620	34.1	49.1%	33,319
S Burkhardt Rd & E Lloyd Expwy	VANDERBURGH	68,489	586	30.8	38.6%	42,070
Indianapolis Blvd & E 53rd Ave	LAKE	54,877	578	37.9	42.5%	31,529
US 31 & E County Line Rd	MARION	58,061	573	35.5	32.1%	39,424
E County Line Rd South & S Emerson Ave	JOHNSON	50,719	561	39.9	28.2%	36,410
N Green River Rd & Morgan Ave	VANDERBURGH	36,628	533	52.4	30.9%	25,321

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Kansas

Signals Analyzed: **1,696**
Signals Analyzed Rank: **31**
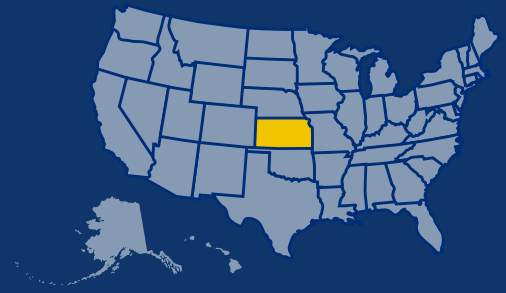
Estimated Crossings/Hour
(in Thousands)
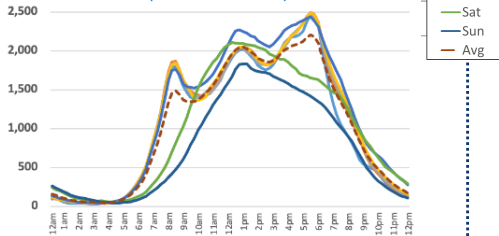
Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
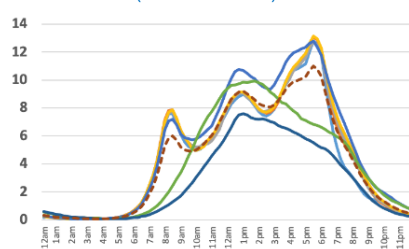
Peak: **Thursday 4:30 – 5:30pm**

Arrival on Green (%)/Hour
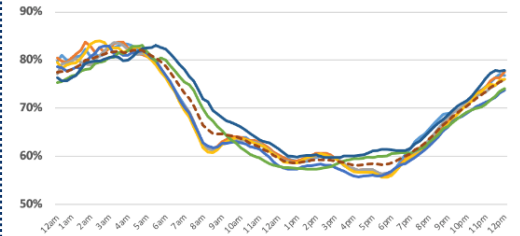
Peak: **Thursday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 36%	B = 50%	C = 14%	D+ = 1%

Average Daily VOLUME

491

Observations / Signal
US Average: 619

Scaled Crossings (millions): **25**
Scaled Crossings/Signal: **14,900**

Weekly PERFORMANCE

14.8

Seconds Delay / Vehicle
US Average: 16.9   Rank: 38

Arrival on Green: **61.4%** (US Avg 62.8%; rank: 17)
Stops/Signal/Day: **5,700** (rank: 36)
Hours of Delay/Signal/Day: **61** (rank: 44)

Typical TRIP

4.5%

% Time Stopped at Signals
US Average: 6.8%   Rank: 34

Total Travel Time: **15.9 mins** (US Avg 17.0; rank: 48)
Signals Traversed: **2.9 mins** (US Avg 4.1; rank: 33)
Total Signal Delay: **0.72 mins** (US Avg 1.15; rank: 37)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
JOHNSON	581	15.3	48,340	83	61.9%	4,338,276
SEDGWICK	317	15.1	16,453	52	59.2%	1,597,083
SHAWNEE	183	14.8	9,722	53	62.5%	887,601
WYANDOTTE	170	13.1	6,318	37	62.9%	644,427
DOUGLAS	92	15.5	6,227	68	62.1%	547,485
RILEY	67	13.7	4,347	65	64.5%	406,686
SALINE	46	13.8	2,324	51	58.2%	253,363
LEAVENWORTH	35	12.7	1,473	42	64.7%	147,278
COWLEY	27	10.3	640	24	67.6%	72,306
BUTLER	13	14.5	881	68	58.1%	91,398

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W 135th St & N Mur-Len Rd	JOHNSON	51,564	490	34.2	38.7%	31,587
Quivira Rd & W 87th St Pkwy	JOHNSON	56,617	462	29.4	40.3%	33,774
W 23rd St & Iowa St	DOUGLAS	37,004	404	39.3	31.7%	25,273
N Parker St & W Santa Fe St	JOHNSON	38,247	386	36.4	36.5%	24,298
Antioch Rd & W 135th St	JOHNSON	45,242	351	28.0	44.8%	24,986
S Strang Line Rd & W 119th St	JOHNSON	45,619	350	27.6	43.7%	25,677
E Santa Fe St	JOHNSON	34,938	343	35.3	35.1%	22,692
W 31st St & Iowa St	DOUGLAS	36,093	336	33.5	39.6%	21,807
Metcalf Ave & W 151st St	JOHNSON	40,810	331	29.2	39.6%	24,656
W 119th St & Quivira Rd	JOHNSON	41,788	330	28.4	35.9%	26,779

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Kentucky

Signals Analyzed: **2,503**
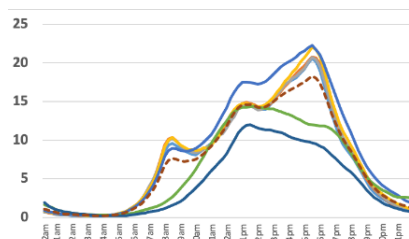Signals Analyzed Rank: **23**
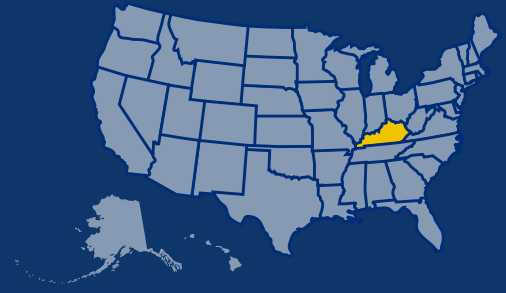
Estimated Crossings/Hour
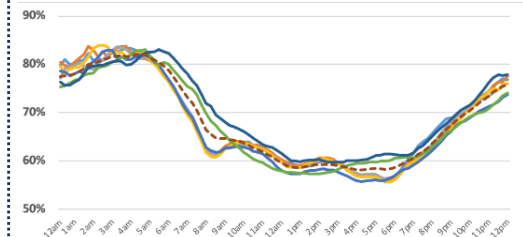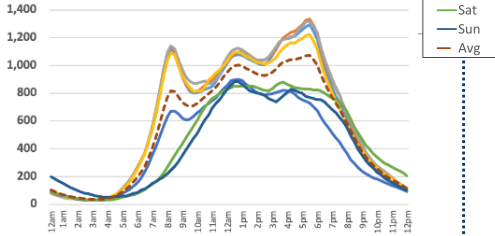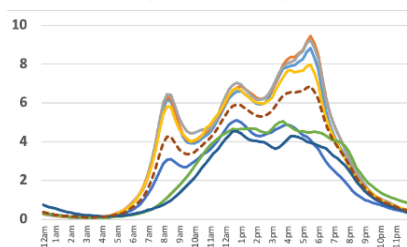(in Thousands)
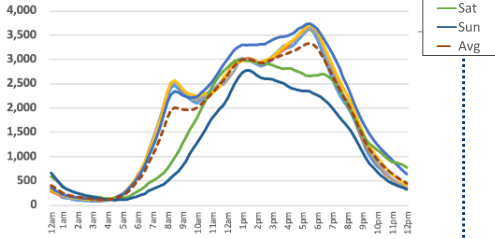
Peak: **Friday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Thursday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

| A = 36% | B = 44% | C = 17% | D+ = 2% |

Average Daily VOLUME

549

Observations / Signal
US Average: 619

Scaled Crossings (millions): **40**
Scaled Crossings/Signal: **16,000**

Weekly PERFORMANCE

15.8

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **30**

Arrival on Green: **65.7%** (US Avg 62.8%; rank: 45)
Stops/Signal/Day: **5,500** (rank: 40)
Hours of Delay/Signal/Day: **70** (rank: 32)

Typical TRIP

5.0%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **29**

Total Travel Time: **17.6 mins** (US Avg 17.0; rank: 14)
Signals Traversed: **3.3 mins** (US Avg 4.1; rank: 26)
Total Signal Delay: **0.88 mins** (US Avg 1.15; rank: 26)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
JEFFERSON	905	17.3	56,578	63	64.4%	4,199,797
FAYETTE	353	16.6	38,232	108	66.9%	2,740,999
KENTON	217	13.7	11,826	54	69.9%	936,470
BOONE	130	18.0	14,185	109	65.6%	977,409
CAMPBELL	130	12.0	6,289	48	73.4%	500,979
DAVIESS	110	11.6	4,499	41	68.4%	439,840
MCCRACKEN	82	14.4	5,126	63	62.6%	480,236
BOYD	63	13.0	3,624	58	67.6%	324,782
WARREN	56	18.5	4,637	83	57.2%	386,769
MASON	28	14.4	1,181	42	68.1%	94,495

Daily Average of Signals with Largest Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
Nicholasville Rd & West Reynolds Rd	FAYETTE	74,375	840	40.7	46.9%	39,464
Houston Rd & Burlington Pike	BOONE	56,200	672	43.0	41.9%	32,654
Man o' War Blvd & Nicholasville Rd	FAYETTE	73,506	625	30.6	39.7%	44,312
Berea Rd & Eastern Bypass	MADISON	46,154	589	45.9	28.8%	32,866
Richmond Rd & Man o' War Blvd	FAYETTE	67,292	576	30.8	32.7%	45,264
N Broadway & W New Circle Rd	FAYETTE	55,197	561	36.6	38.6%	33,905
Cooper Dr & Nicholasville Rd	FAYETTE	48,730	554	41.0	38.5%	29,979
Westport Rd & North Hurstbourne Pkwy	JEFFERSON	45,275	553	43.9	39.0%	27,606
Outer Loop & Preston Hwy	JEFFERSON	38,410	533	49.9	29.8%	26,949
Dixie Hwy & Saint Andrews Church Rd	JEFFERSON	41,707	517	44.6	33.5%	27,716

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Louisiana

Signals Analyzed: **892**
Signals Analyzed Rank: **36**

Estimated Crossings/Hour
(in Thousands)

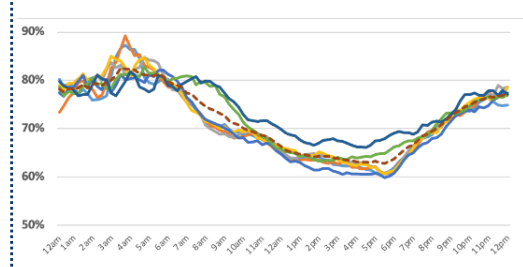Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Tuesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 20%	B = 47%	C = 30%	D+ = 4%

Average Daily VOLUME

781

Observations / Signal
US Average: 619

Scaled Crossings (millions): **13**
Scaled Crossings/Signal: **14,700**

Weekly PERFORMANCE

19.2

Seconds Delay / Vehicle
US Average: 16.9   Rank: 4

Arrival on Green: **58.9%** (US Avg 62.8%; rank: 8)
Stops/Signal/Day: **6,100** (rank: 26)
Hours of Delay/Signal/Day: **79** (rank: 22)

Typical TRIP

2.0%

% Time Stopped at Signals
US Average: 6.8%   Rank: 49

Total Travel Time: **17.4 mins** (US Avg 17.0; rank: 19)
Signals Traversed: **1.1 mins** (US Avg 4.1; rank: 51)
Total Signal Delay: **0.35 mins** (US Avg 1.15; rank: 49)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
EAST BATON ROUGE	166	18.9	8,808	53	61.4%	647,895
JEFFERSON	153	19.9	16,356	107	59.7%	1,188,538
ORLEANS	151	20.7	9,648	64	56.0%	740,613
RAPIDES	73	13.8	3,318	45	62.2%	325,779
CADDO	69	16.6	4,310	62	58.1%	392,351
TANGIPAHOA	47	19.2	3,767	80	60.3%	279,853
CALCASIEU	39	24.0	3,011	77	48.6%	232,424
LAFAYETTE	31	24.2	5,908	191	55.1%	394,998
LAFOURCHE	31	20.7	2,556	82	53.8%	205,195
ST TAMMANY	20	15.7	2,061	103	67.0%	156,275

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Johnston St & Amb Caffery Pkwy	LAFAYETTE	43,902	676	55.4	26.4%	32,291
Williams Blvd & Veterans Mem Blvd	JEFFERSON	57,009	674	42.6	28.6%	40,686
W Pinhook Rd & E Kaliste Saloom Rd	LAFAYETTE	43,836	549	45.1	29.3%	30,985
Kaliste Saloom Rd	LAFAYETTE	50,085	501	36.0	41.0%	29,535
Staring Lane & Perkins Rd	EAST BATON ROUGE	29,103	448	55.4	27.7%	21,055
Lapalco Blvd & Belle Chasse Hwy	JEFFERSON	36,057	433	43.2	38.3%	22,256
W Esplanade Ave & Williams Blvd	JEFFERSON	46,320	423	32.8	41.1%	27,266
Paris Rd & E Judge Perez Dr	ST BERNARD	39,123	383	35.2	40.9%	23,114
Westbank Expwy & Manhattan Blvd	JEFFERSON	34,109	381	40.2	38.1%	21,117
W Thomas St & North Morrison Blvd	TANGIPAHOA	33,625	380	40.7	33.9%	22,211

Notes:

- The methodology used to generate results shown is detailed in Appendix A of the Scorecard
- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Massachusetts

Signals Analyzed: **4,034**
Signals Analyzed Rank: **17**

Estimated Crossings/Hour
(in Thousands)
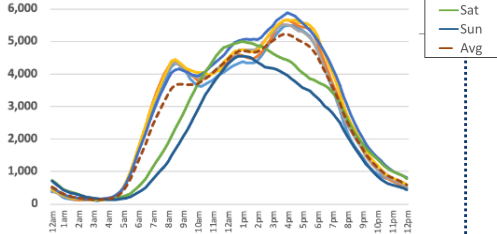
Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
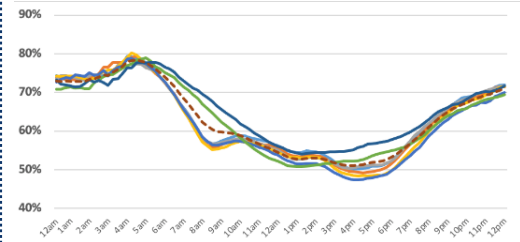
Peak: **Friday 3:00 – 4:00pm**

Total Hours Delay/Hour
(in Thousands)
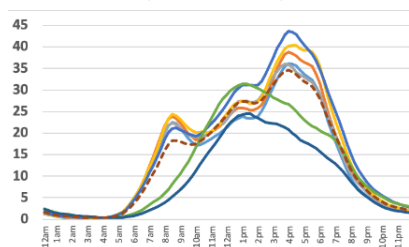
Peak: **Friday 3:00 – 4:00pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 20%	B = 43%	C = 30%	D+ = 7%

Average Daily VOLUME

389

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **64**
Scaled Crossings/Signal: **15,800**

Weekly PERFORMANCE

19.1

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **5**

Arrival on Green: **56.0%** (US Avg 62.8%; rank: 1)
Stops/Signal/Day: **6,900** (rank: 13)
Hours of Delay/Signal/Day: **84** (rank: 13)

Typical TRIP

6.2%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **20**

Total Travel Time: **17.0 mins** (US Avg 17.0; rank: 26)
Signals Traversed: **3.3 mins** (US Avg 4.1; rank: 28)
Total Signal Delay: **1.05 mins** (US Avg 1.15; rank: 19)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MIDDLESEX	1,317	19.1	107,162	81	55.7%	8,959,518
SUFFOLK	751	24.0	61,952	82	54.7%	4,208,070
NORFOLK	485	18.8	38,365	79	57.0%	3,164,588
ESSEX	437	19.0	41,176	94	56.2%	3,416,782
WORCESTER	298	17.2	26,443	89	56.8%	2,399,567
PLYMOUTH	225	17.6	21,135	94	53.8%	1,996,138
BRISTOL	160	18.3	15,792	99	54.7%	1,404,886
HAMPDEN	113	16.9	9,279	82	57.4%	842,565
BARNSTABLE	101	15.5	7,998	79	58.4%	772,173
HAMPSHIRE	63	18.7	4,229	67	54.0%	374,872

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Southampton St & Mass Ave Connector	SUFFOLK	57,686	709	44.2	25.6%	42,939
Highland Ave & Trader's Way	ESSEX	38,352	562	52.7	30.5%	26,652
Faunce Corner Mall Rd & State Rd	BRISTOL	51,983	560	38.8	34.0%	34,304
Hammond St & Boylston St	NORFOLK	47,672	538	40.6	36.1%	30,483
Commerce Way & Mishawum Rd	MIDDLESEX	43,317	527	43.8	28.2%	31,097
Lake Ave North & Belmont St	WORCESTER	49,174	507	37.1	26.1%	36,355
American Legion Hwy & Revere St	SUFFOLK	41,534	506	43.8	33.7%	27,526
Eastern Ave & Broadway	MIDDLESEX	32,818	504	55.3	20.4%	26,127
Norman St & Washington St	ESSEX	24,960	479	69.1	25.8%	18,513
WT Morrissey Blvd & Freeport St	SUFFOLK	33,201	462	50.1	30.0%	23,251

Notes:

➤ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➤ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➤ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➤ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Maryland

Signals Analyzed: **4,772**
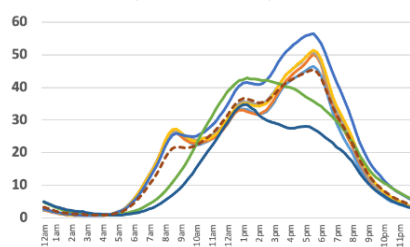Signals Analyzed Rank: **13**
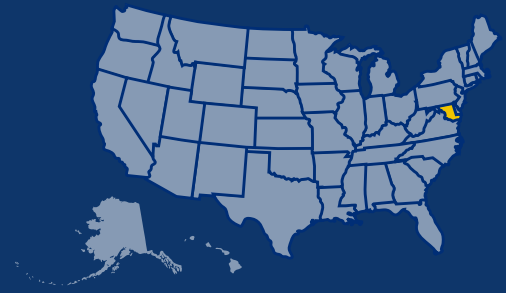
Estimated Crossings/Hour
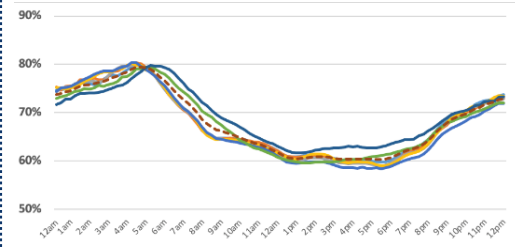(in Thousands)
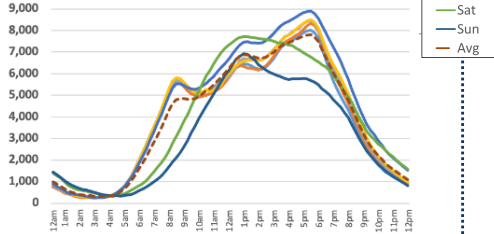
Peak: **Friday 4:30 – 5:30**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:30 – 5:30pm**

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Signals by Weekly Average Level of Service:

A = 26%	B = 43%	C = 25%	D+ = 5%

Average Daily VOLUME

511

Observations / Signal
US Average: 619

Scaled Crossings (millions): **95**
Scaled Crossings/Signal: **19,900**

Weekly PERFORMANCE

17.6

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **11**

Arrival on Green: **63.6%** (US Avg 62.8%; rank: 28)
Stops/Signal/Day: **7,200** (rank: 9)
Hours of Delay/Signal/Day: **97** (rank: 8)

Typical TRIP

9.5%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **7**

Total Travel Time: **18.2 mins** (US Avg 17.0; rank: 6)
Signals Traversed: **5.9 mins** (US Avg 4.1; rank: 5)
Total Signal Delay: **1.73 mins** (US Avg 1.15; rank: 4)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
BALTIMORE (CITY)	1,115	20.7	84,058	75	59.7%	5,884,549
MONTGOMERY	737	17.8	73,853	100	64.6%	5,303,184
BALTIMORE	649	16.9	66,477	102	64.3%	5,067,356
PRINCE GEORGE'S	511	18.5	63,308	124	62.9%	4,556,043
ANNE ARUNDEL	358	17.9	41,477	116	63.0%	3,086,767
HOWARD	218	15.9	16,756	77	63.0%	1,399,631
FREDERICK	162	18.3	15,474	96	59.5%	1,235,138
WASHINGTON	160	15.0	9,316	58	63.1%	826,526
HARFORD	159	18.7	22,807	143	59.9%	1,759,173
WICOMICO	109	15.3	8,914	82	67.5%	683,682

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Leonardtown Rd & Crain Hwy	CHARLES	79,446	1,154	52.3	36.5%	50,483
Pulaski Hwy & Rossville Blvd	BALTIMORE	65,407	781	43.0	38.6%	40,133
Frederick Rd & Ridge Rd	MONTGOMERY	59,604	732	44.2	31.1%	41,064
Saint Andrews Church Rd & Three Notch Rd	ST MARYS	59,697	728	43.9	32.4%	40,345
Quince Orchard Rd & North Frederick Ave	MONTGOMERY	56,226	699	44.7	32.6%	37,872
East-West Hwy & Baltimore Ave	PRINCE GEORGE'S	45,634	687	54.2	24.6%	34,392
Baltimore Pike & Vietnam Vets Mem Hwy	HARFORD	55,592	683	44.2	31.5%	38,075
Pennsylvania Ave & Forestville Rd	PRINCE GEORGE'S	56,890	678	42.9	31.3%	39,059
Baltimore Blvd & Malcolm Dr	CARROLL	61,415	665	39.0	43.2%	34,863
East-West Hwy & Connecticut Ave	MONTGOMERY	56,524	653	41.6	38.3%	34,876

Notes:

➤ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➤ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➤ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➤ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Maine

Signals Analyzed: **331**
Signals Analyzed Rank: **48**
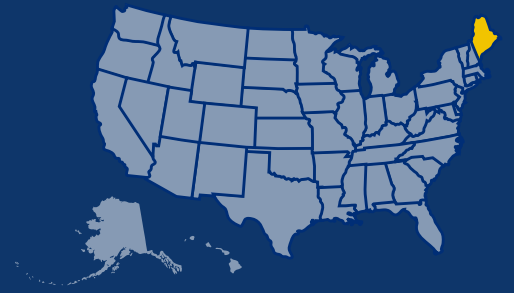
Estimated Crossings/Hour
(in Thousands)
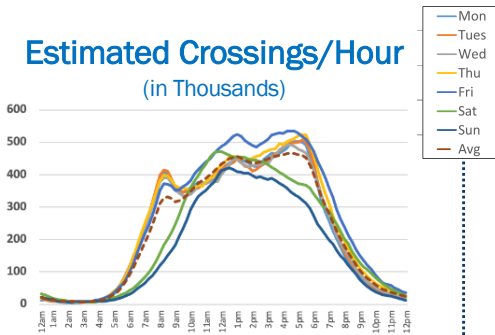
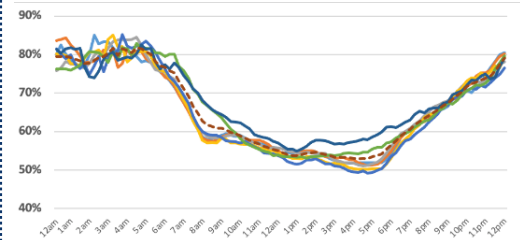Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 3:30 – 4:30pm**

Total Hours Delay/Hour
(in Thousands)
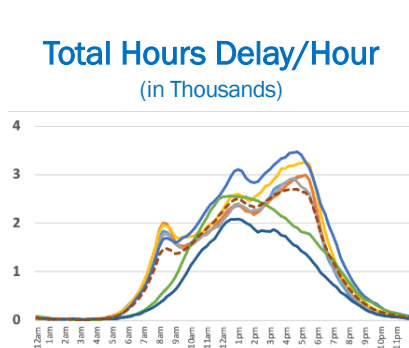
Peak: **Friday 3:45 – 4:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:45 – 4:45pm**

Signals by Weekly Average Level of Service:

A = 20%	B = 54%	C = 24%	D+ = 3%

Average Daily VOLUME

540

Observations / Signal
US Average: 619

Scaled Crossings (millions): **5**
Scaled Crossings/Signal: **16,600**

Weekly PERFORMANCE

17.5

Seconds Delay / Vehicle
US Average: 16.9   Rank: 13

Arrival on Green: **57.2%** (US Avg 62.8%; rank: 2)
Stops/Signal/Day: **7,100** (rank: 10)
Hours of Delay/Signal/Day: **81** (rank: 17)

Typical TRIP

1.9%

% Time Stopped at Signals
US Average: 6.8%   Rank: 51

Total Travel Time: **17.6 mins** (US Avg 17.0; rank: 15)
Signals Traversed: **1.2 mins** (US Avg 4.1; rank: 50)
Total Signal Delay: **0.34 mins** (US Avg 1.15; rank: 51)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
PENOBSCOT	93	16.3	6,544	70	60.8%	564,581
CUMBERLAND	78	19.2	6,773	87	54.2%	580,910
YORK	50	17.7	4,388	88	55.1%	400,323
KENNEBEC	36	16.7	2,698	75	59.8%	234,509
ANDROSCOGGIN	31	17.7	3,318	107	57.7%	284,958
HANCOCK	11	18.5	1,156	105	54.6%	101,891
AROOSTOOK	10	16.0	587	59	55.2%	59,173

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Elm St & West St	YORK	31,324	428	49.2	26.5%	23,020
Precourt St & Alfred St	YORK	44,071	394	32.1	34.1%	29,034
Minot Ave & Court St	ANDROSCOGGIN	35,463	340	34.5	32.9%	23,785
Odlin Rd & Bangor-Brewer Expwy	PENOBSCOT	26,308	335	45.8	29.7%	18,507
Bath Rd	CUMBERLAND	28,863	324	40.4	28.4%	20,677
Riverside St	CUMBERLAND	34,305	318	33.4	37.3%	21,517
Oak St & Main St	HANCOCK	30,742	308	36.1	32.2%	20,829
Turner St & Union St Bypass	ANDROSCOGGIN	31,495	304	34.8	32.8%	21,151
State St & South St	CUMBERLAND	28,278	283	36.1	35.1%	18,347
Main St	YORK	24,269	264	39.2	40.8%	14,367

Notes:
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- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Michigan

Signals Analyzed: **7,091**
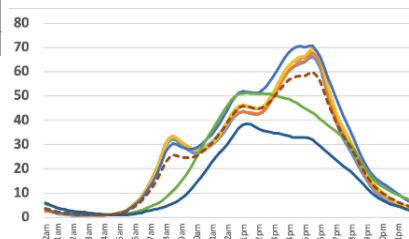Signals Analyzed Rank: **9**
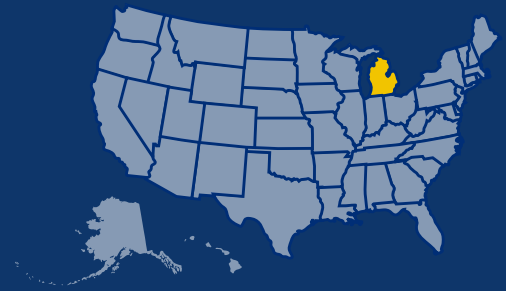
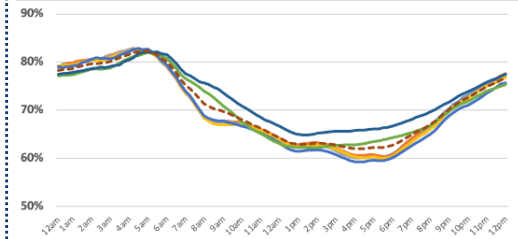## Estimated Crossings/Hour
(in Thousands)
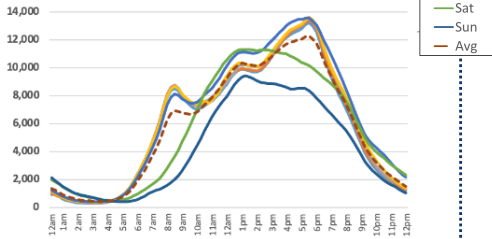
Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:00 – 4:00pm**

Signals by Weekly Average Level of Service:

A = 35%	B = 48%	C = 16%	D+ = 1%

Average Daily VOLUME

1,422
Observations / Signal
US Average: **619**

Scaled Crossings (millions): **141**
Scaled Crossings/Signal: **19,900**

Weekly PERFORMANCE

14.9
Seconds Delay / Vehicle
US Average: **16.9**   Rank: **37**

Arrival on Green: **65.2% (US Avg 62.8%; rank: 44)**
Stops/Signal/Day: **6,900 (rank: 14)**
Hours of Delay/Signal/Day: **82 (rank: 14)**

Typical TRIP

7.2%
% Time Stopped at Signals
US Average: **6.8%**   Rank: **13**

Total Travel Time: **15.9 mins (US Avg 17.0; rank: 47)**
Signals Traversed: **4.7 mins (US Avg 4.1; rank: 13)**
Total Signal Delay: **1.15 mins (US Avg 1.15; rank: 14)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
WAYNE	2,447	14.8	149,827	61	63.7%	13,179,367
OAKLAND	1,370	14.4	141,171	103	69.0%	10,973,248
MACOMB	592	14.6	80,531	136	69.5%	6,071,042
KENT	458	15.4	41,913	92	62.9%	3,624,389
WASHTENAW	336	17.6	23,260	69	60.5%	1,883,449
GENESEE	254	15.9	22,012	87	58.9%	2,055,671
INGHAM	235	16.0	17,673	75	60.4%	1,569,851
OTTAWA	127	14.5	11,555	91	64.9%	1,005,926
KALAMAZOO	127	16.4	10,880	86	61.5%	919,013
MIDLAND	96	13.2	5,239	55	69.1%	441,579

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
E Tienken Rd & N Rochester Rd	OAKLAND	83,704	940	40.4	32.6%	56,376
Hayes Rd & 23 Mile Rd	MACOMB	82,415	883	38.6	35.8%	52,942
Schoenherr Rd & 23 Mile Rd	MACOMB	83,813	846	36.4	37.0%	52,793
West Avon Rd & S Rochester Rd	OAKLAND	67,584	769	41.0	36.1%	43,196
Bay Rd & Tittabawassee Rd	SAGINAW	63,350	711	40.4	27.2%	46,117
White Lake Rd & Dixie Hwy	OAKLAND	73,726	708	34.6	40.9%	43,572
John R Rd & W 12 Mile Rd	OAKLAND	53,628	705	47.4	26.9%	39,188
S Rochester Rd & W Auburn Rd	OAKLAND	64,861	705	39.1	42.2%	37,476
8 Mile Rd & Haggerty Rd	WAYNE	57,506	702	44.0	27.7%	41,578
Mound Rd & Metropolitan Pkwy	MACOMB	141,091	702	17.9	70.6%	41,477

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Minnesota

Signals Analyzed: **3,302**
Signals Analyzed Rank: **21**
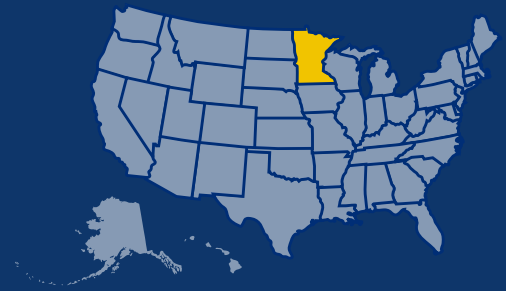
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
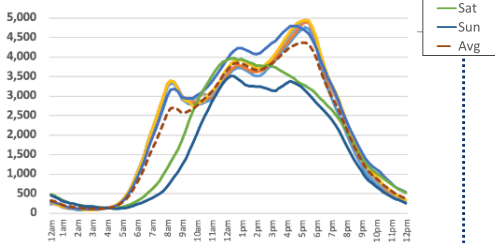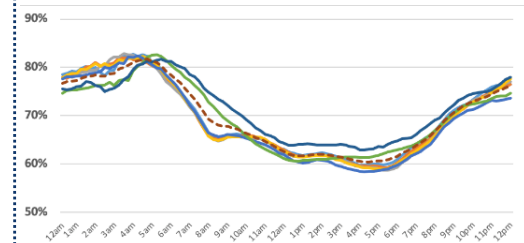
Peak: **Thursday 4:15 – 5:15pm**

Total Hours Delay/Hour
(in Thousands)
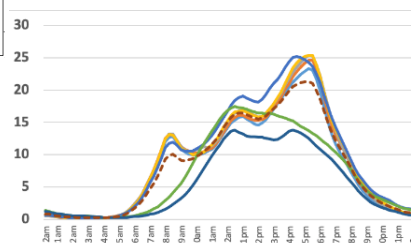
Peak: **Thursday 4:15 – 5:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service

A = 33%	B = 50%	C = 16%	D+ = 1%

Average Daily VOLUME

563

Observations / Signal
US Average: 619

Scaled Crossings (millions): **50**
Scaled Crossings/Signal: **15,200**

Weekly PERFORMANCE

14.4

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **43**

Arrival on Green: **64.2% (US Avg 62.8%; rank: 34)**
Stops/Signal/Day: **5,400 (rank: 42)**
Hours of Delay/Signal/Day: **61 (rank: 45)**

Typical TRIP

4.0%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **38**

Total Travel Time: **16.7 mins (US Avg 17.0; rank: 33)**
Signals Traversed: **2.9 mins (US Avg 4.1; rank: 37)**
Total Signal Delay: **0.67 mins (US Avg 1.15; rank: 38)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HENNEPIN	1,411	15.3	74,419	53	64.2%	6,257,519
RAMSEY	456	14.7	23,943	53	63.6%	2,135,722
DAKOTA	188	13.1	15,902	85	65.4%	1,512,312
ANOKA	167	14.6	17,093	102	64.6%	1,487,848
OLMSTED	142	15.3	9,122	64	62.1%	816,117
ST LOUIS	137	12.7	5,291	39	67.4%	490,681
WASHINGTON	116	14.0	10,298	89	64.0%	955,199
STEARNS	85	15.5	7,349	86	64.2%	612,571
WRIGHT	58	13.1	4,546	78	65.6%	430,425
BLUE EARTH	49	12.9	2,667	54	64.5%	265,133

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
N Ferry St & W Main St	ANOKA	55,984	627	40.3	37.3%	35,104
109th Ave NE & Central Ave NE	ANOKA	81,999	627	27.5	60.6%	32,306
Division St & MN 15; MN23	STEARNS	54,792	566	37.2	39.3%	33,236
MN Hwy 7 & County Rd 101	HENNEPIN	59,267	560	34.0	51.1%	29,009
POW/MIA Mem Hwy & Main St NW	SHERBURNE	70,271	498	25.5	51.3%	34,254
Elm Creek Blvd & Hemlock Lane N	HENNEPIN	44,484	481	38.9	43.4%	25,164
MN 15 & 2nd St S	STEARNS	40,060	466	41.9	37.6%	24,999
S Diamond Lake Rd & MN 101	HENNEPIN	53,146	462	31.3	41.8%	30,922
Cedar Ave & 160th St W	DAKOTA	72,579	462	22.9	44.3%	40,400
Anderson Mem Hwy & State Hwy 210	CROW WING	38,204	456	42.9	40.9%	22,595

Notes:

- The methodology used to generate results shown is detailed in Appendix A of the Scorecard
- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Missouri

Signals Analyzed: **4,016**

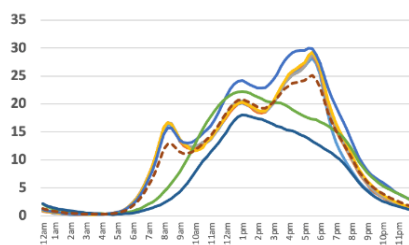Signals Analyzed Rank: **18**
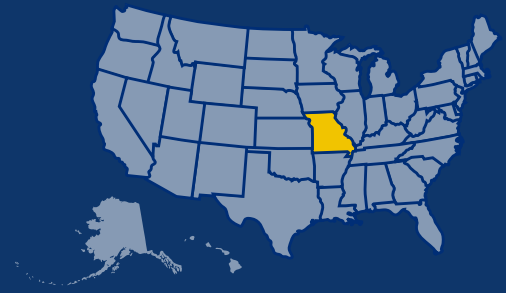
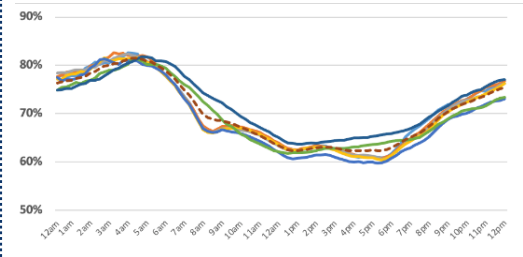## Estimated Crossings/Hour
(in Thousands)
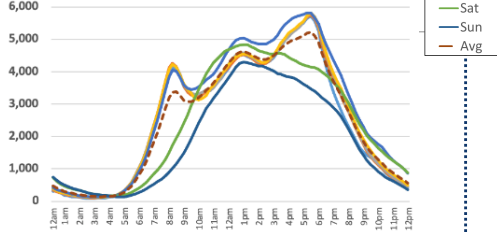
Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:15 – 5:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:15 – 5:15pm**

Signals by Weekly Average Level of Service:

A = 35%	B = 46%	C = 17%	D+ = 2%

Average Daily VOLUME

686

Observations / Signal
US Average: 619

Scaled Crossings (millions): **61**
Scaled Crossings/Signal: **15,100**

Weekly PERFORMANCE

14.7

Seconds Delay / Vehicle
US Average: 16.9   Rank: 41

Arrival on Green: **65.0% (US Avg 62.8%; rank: 41)**
Stops/Signal/Day: **5,300 (rank: 45)**
Hours of Delay/Signal/Day: **62 (rank: 43)**

Typical TRIP

5.1%

% Time Stopped at Signals
US Average: 6.8%   Rank: 27

Total Travel Time: **16.8 mins (US Avg 17.0; rank: 29)**
Signals Traversed: **3.5 mins (US Avg 4.1; rank: 25)**
Total Signal Delay: **0.85 mins (US Avg 1.15; rank: 28)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
JACKSON	824	14.6	42,537	52	63.1%	3,859,602
ST LOUIS	723	13.3	42,530	59	70.5%	3,402,053
ST LOUIS (CITY)	591	17.5	30,116	51	65.7%	2,122,911
ST CHARLES	263	13.7	19,126	73	67.9%	1,615,384
GREENE	249	14.8	22,884	92	65.7%	1,907,458
CLAY	202	14.9	14,088	70	62.7%	1,268,358
BOONE	124	16.8	10,059	81	59.5%	872,706
JASPER	95	16.4	7,185	76	60.0%	630,296
BUCHANAN	82	15.6	4,729	58	60.2%	433,332
PLATTE	76	15.7	4,406	58	61.7%	388,157

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
S Providence Rd & E Stadium Blvd	BOONE	62,289	562	32.5	35.5%	40,207
S Kingshighway Blvd & I-64	ST LOUIS (CITY)	42,250	557	47.4	20.2%	33,717
MO 291 & E 23rd St S	JACKSON	55,437	497	32.3	45.9%	29,985
W Sunshine St & S Kansas Expwy	GREENE	47,146	460	35.1	40.0%	28,297
Cpl M.E. Webster Mem Pkwy & MO 7	JACKSON	41,942	458	39.3	27.2%	30,547
W MacArthur Dr & S Madison St	JASPER	36,969	444	43.2	32.7%	24,873
W Main St & Veterans Blvd	TANEY	24,995	439	63.3	19.2%	20,206
Alex Doniphan Mem Hwy & N Church Rd	CLAY	50,369	432	30.9	39.0%	30,710
W Republic Rd & S Campbell Ave	GREENE	54,309	429	28.5	44.9%	29,939
S National Ave & E Sunshine St	GREENE	50,925	426	30.1	43.0%	29,019

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
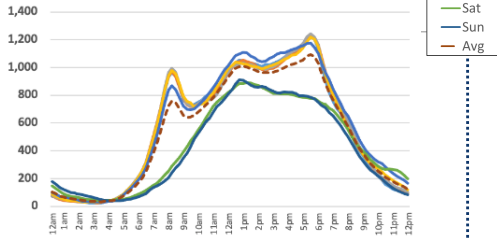➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX

Mississippi

Signals Analyzed: **815**
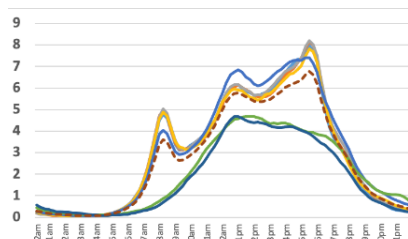Signals Analyzed Rank: **38**
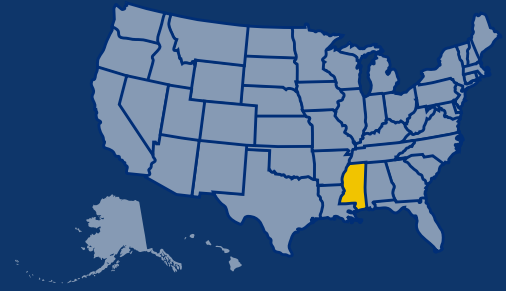
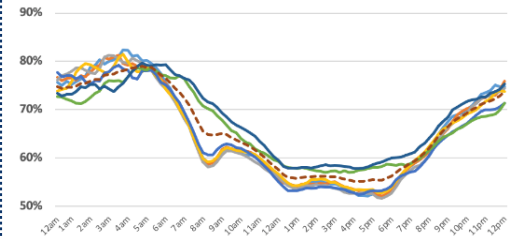## Estimated Crossings/Hour
(in Thousands)

Peak: **Wednesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Wednesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Wednesday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service: A = 24%   B = 48%   C = 25%   D+ = 3%

Average Daily VOLUME

647

Observations / Signal
US Average: 619

Scaled Crossings (millions): **13**
Scaled Crossings/Signal: **15,800**

Weekly PERFORMANCE

18.1

Seconds Delay / Vehicle
US Average: 16.9   Rank: 8

Arrival on Green: **59.2%** (US Avg 62.8%; rank: 9)
Stops/Signal/Day: **6,500** (rank: 21)
Hours of Delay/Signal/Day: **80** (rank: 19)

Typical TRIP

2.7%

% Time Stopped at Signals
US Average: 6.8%   Rank: 44

Total Travel Time: **18.1 mins** (US Avg 17.0; rank: 7)
Signals Traversed: **1.6 mins** (US Avg 4.1; rank: 47)
Total Signal Delay: **0.49 mins** (US Avg 1.15; rank: 44)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HINDS	101	21.1	5,911	59	54.0%	463,103
HARRISON	90	19.0	11,189	124	62.1%	802,216
JACKSON	78	16.0	6,901	88	63.5%	567,073
DE SOTO	75	18.1	10,032	134	59.1%	815,716
FORREST	73	17.7	4,083	56	59.3%	337,273
LEE	50	18.0	3,511	70	57.4%	298,810
RANKIN	46	21.6	5,755	125	55.4%	426,982
OKTIBBEHA	45	18.1	2,821	63	56.1%	246,043
JONES	43	15.8	1,658	39	55.2%	168,587
LAFAYETTE	42	16.3	2,820	67	61.3%	241,139

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
US 49 & Creosote Rd	HARRISON	58,234	647	40.0	45.8%	31,569
Goodman Rd East & Airways Blvd	DE SOTO	47,732	622	46.9	29.3%	33,738
Getwell Rd & Goodman Rd E	DE SOTO	52,946	584	39.7	36.6%	33,585
Washington Ave & Bienville Blvd	JACKSON	53,378	517	34.9	40.8%	31,625
Lakeland Dr & Old Fannin Rd	RANKIN	52,166	504	34.8	43.2%	29,647
Goodman Rd W & Southcrest Pkwy	DE SOTO	54,359	503	33.3	40.1%	32,582
Hardy St & US 49	FORREST	31,755	460	52.1	26.9%	23,207
US 49 & Dedeaux Rd	HARRISON	49,195	454	33.2	50.4%	24,393
Veterans Ave	HARRISON	36,935	446	43.5	32.4%	24,957
US 80 & MS 468	RANKIN	31,174	441	51.0	24.7%	23,478

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
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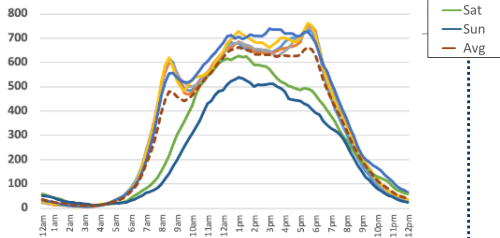➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Montana

Signals Analyzed: **446**

Signals Analyzed Rank: **46**
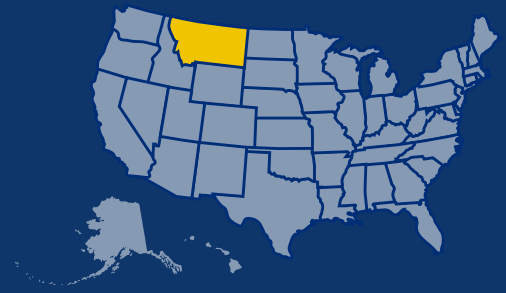
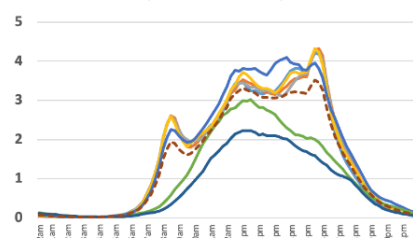## Estimated Crossings/Hour
(in Thousands)

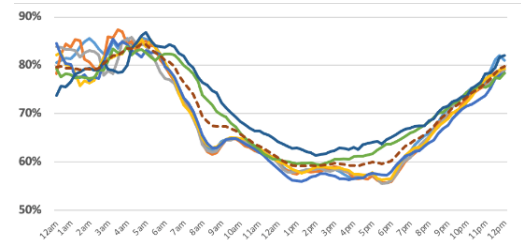Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Thursday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Tuesday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Wednesday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 33%	B = 49%	C = 16%	D+ = 2%

Average Daily VOLUME

561

Observations / Signal

US Average: 619

Scaled Crossings (millions): **8**
Scaled Crossings/Signal: **17,600**

Weekly PERFORMANCE

15.7

Seconds Delay / Vehicle

US Average: 16.9   Rank: 31

Arrival on Green: **62.5%** (US Avg 62.8%; rank: 24)
Stops/Signal/Day: **6,600** (rank: 19)
Hours of Delay/Signal/Day: **76** (rank: 25)

Typical TRIP

3.4%

% Time Stopped at Signals

US Average: 6.8%   Rank: 41

Total Travel Time: **16.8 mins** (US Avg 17.0; rank: 30)
Signals Traversed: **2.2 mins** (US Avg 4.1; rank: 43)
Total Signal Delay: **0.57 mins** (US Avg 1.15; rank: 42)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
YELLOWSTONE	124	15.3	9,465	76	61.7%	850,096
MISSOULA	73	18.6	7,196	99	62.0%	529,259
GALLATIN	64	18.3	6,365	99	57.3%	533,692
LEWIS AND CLARK	47	15.6	3,542	75	63.3%	300,710
CASCADE	31	13.5	2,887	93	68.1%	245,534
FLATHEAD	27	13.5	1,941	72	63.4%	190,059
SILVER BOW	22	10.6	922	42	68.6%	98,759

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
N Reserve St & Mullan Rd	MISSOULA	46,816	579	44.5	37.5%	29,273
W Main St & S 19th Ave	GALLATIN	50,337	477	34.1	42.0%	29,217
King Ave W & S 24th St W	YELLOWSTONE	42,113	449	38.3	30.7%	29,202
S Ave W & S Reserve St	MISSOULA	43,324	445	37.0	43.3%	24,544
9th St S & 10th Ave S	CASCADE	44,855	404	32.4	43.7%	25,235
Central Ave & 24th St W	YELLOWSTONE	36,802	388	38.0	30.9%	25,442
Broadwater Ave & S 24th St W	YELLOWSTONE	32,133	382	42.8	25.5%	23,949
S Reserve St & S 3rd St W	MISSOULA	49,172	376	27.5	53.6%	22,824
E Custer Ave & N Montana Ave	LEWIS AND CLARK	35,743	351	35.4	37.8%	22,228
Overland Ave & King Ave W	YELLOWSTONE	45,465	349	27.7	42.8%	26,007

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

North Carolina

Signals Analyzed: **5,603**
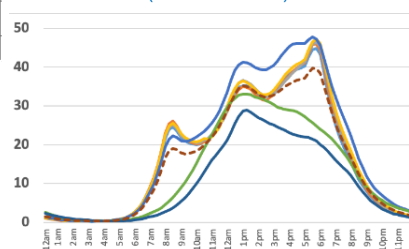Signals Analyzed Rank: **10**
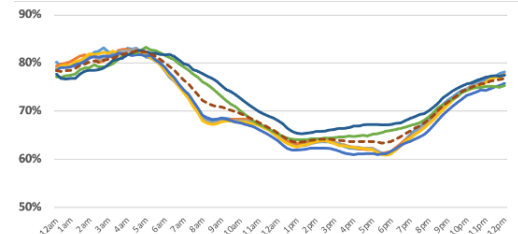
Estimated Crossings/Hour
(in Thousands)
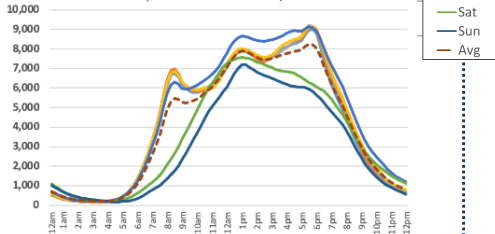
Peak: **Wednesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Thursday 4:45 – 5:45pm**

Signals by Weekly Average Level of Service:

A = 46%	B = 39%	C = 13%	D+ = 2%

Average Daily VOLUME

526

Observations / Signal
US Average: 619

Scaled Crossings (millions): **98**
Scaled Crossings/Signal: **17,600**

Weekly PERFORMANCE

14.2

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **44**

Arrival on Green: **66.3%** (US Avg 62.8%; rank: 47)
Stops/Signal/Day: **5,900** (rank: 34)
Hours of Delay/Signal/Day: **69** (rank: 33)

Typical TRIP

4.4%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **36**

Total Travel Time: **17.5 mins** (US Avg 17.0; rank: 16)
Signals Traversed: **3.3 mins** (US Avg 4.1; rank: 29)
Total Signal Delay: **0.78 mins** (US Avg 1.15; rank: 35)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MECKLENBURG	844	16.7	78,809	93	63.4%	6,216,518
GUILFORD	640	12.0	31,516	49	69.4%	2,881,739
WAKE	413	12.8	24,108	58	69.1%	2,097,337
FORSYTH	334	15.1	18,392	55	61.5%	1,692,715
DURHAM	282	12.7	10,443	37	66.1%	1,003,769
CUMBERLAND	233	13.7	19,257	83	67.6%	1,641,975
NEW HANOVER	187	13.1	17,495	94	72.0%	1,343,899
CABARRUS	137	16.5	14,934	109	63.5%	1,192,332
BUNCOMBE	124	15.2	10,060	81	66.9%	785,409
ALAMANCE	120	12.9	5,307	44	67.1%	485,369

Daily Average of Signals with Largest Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
US 221 & Blowing Rock Rd	WATAUGA	63,930	1,052	59.2	22.6%	49,477
Providence Rd & Ballantyne Commons Pkwy	MECKLENBURG	57,580	838	52.4	33.5%	38,264
Hanes Mall Blvd & S Stratford Rd	FORSYTH	65,585	723	39.7	34.3%	43,059
Williamson Rd & River Hwy	IREDELL	58,469	703	43.3	41.6%	34,162
N Marine Blvd & Western Blvd	ONSLOW	65,811	693	37.9	36.3%	41,913
E 10th St & Greenville Blvd SE	PITT	52,282	664	45.7	32.4%	35,348
Ardrey Kell Rd & Providence Rd	MECKLENBURG	74,197	663	32.2	43.7%	41,794
South Blvd & Tyvola Rd	MECKLENBURG	48,114	659	49.3	33.6%	31,935
Eastwood Rd & Military Cutoff Rd	NEW HANOVER	61,463	659	38.6	34.6%	40,173
Williamson Rd & Brawley School Rd	IREDELL	63,532	647	36.7	42.1%	36,804

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
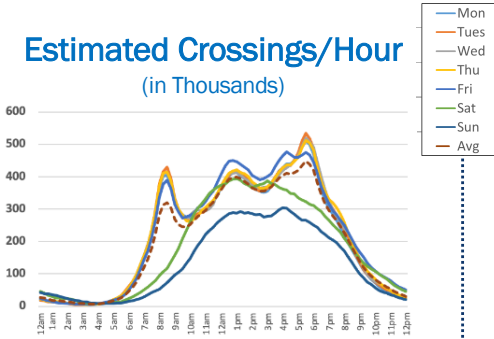➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

North Dakota

Signals Analyzed: **290**
Signals Analyzed Rank: **50**
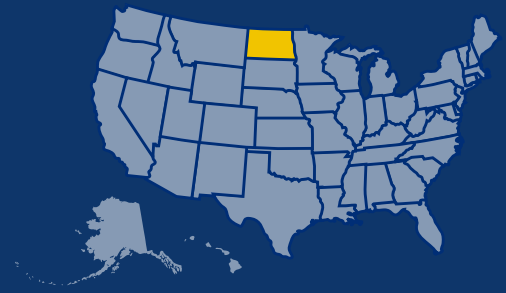
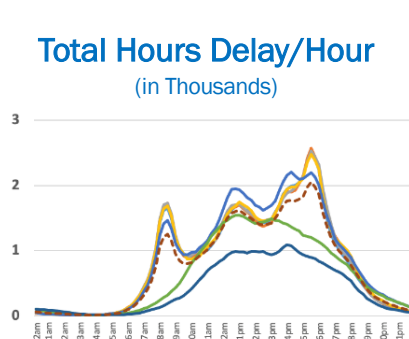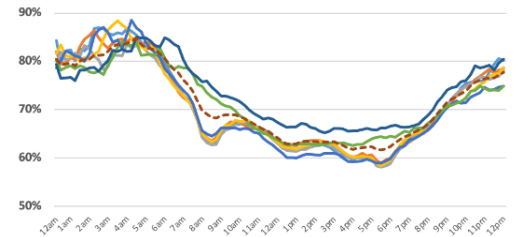## Estimated Crossings/Hour
(in Thousands)

Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Tuesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Monday 4:30 – 5:30pm**

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Signals by Weekly Average Level of Service:

A = 36% | B = 56% | C = 8% | D+ = 1%

Average Daily VOLUME

917

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **5**
Scaled Crossings/Signal: **16,900**

Weekly PERFORMANCE

13.5

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **48**

Arrival on Green: **65.0% (US Avg 62.8%; rank: 40)**
Stops/Signal/Day: **5,900 (rank: 32)**
Hours of Delay/Signal/Day: **63 (rank: 41)**

Typical TRIP

2.4%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **47**

Total Travel Time: **16.0 mins (US Avg 17.0; rank: 45)**
Signals Traversed: **1.7 mins (US Avg 4.1; rank: 45)**
Total Signal Delay: **0.39 mins (US Avg 1.15; rank: 48)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
CASS	81	13.7	4,614	57	64.8%	426,344
BURLEIGH	70	13.7	5,657	81	66.3%	501,136
GRAND FORKS	55	13.0	3,523	64	67.3%	317,594
WARD	54	13.1	3,002	56	63.0%	304,648
WILLIAMS	16	17.2	1,160	73	51.1%	118,572

Daily Average of Signals with Largest Total Delay

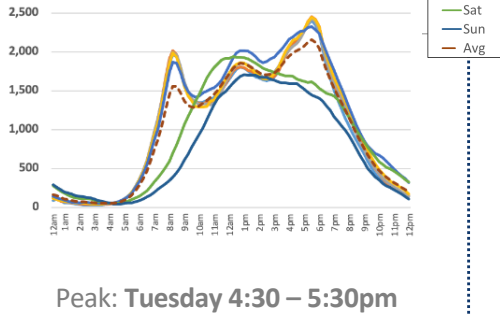| Name	County	ADT	DHD	D/V	AOG (%)	Stops
N Washington St & E Century Ave	BURLEIGH	34,201	258	27.2	38.7%	20,972
Burdick Expwy W & S Broadway	WARD	30,950	238	27.7	40.0%	18,559
26th St W & 2nd Ave	WILLIAMS	24,202	235	35.0	28.3%	17,363
S Washington St & 32nd Ave S	GRAND FORKS	26,236	233	32.0	40.7%	15,569
25th St S & Main Ave	CASS	23,293	230	35.5	36.9%	14,709
Veteran's Blvd & 23rd Ave S	CASS	42,362	229	19.5	47.3%	22,320
S Washington St & Demers Ave	GRAND FORKS	25,249	227	32.4	34.5%	16,530
32nd Ave S & S Columbia Rd	GRAND FORKS	32,041	219	24.6	41.0%	18,897
Veterans Blvd & 32nd Ave E	CASS	35,425	199	20.3	43.7%	19,932
45th St SW & 19th Ave S	CASS	41,339	199	17.3	62.3%	15,586

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
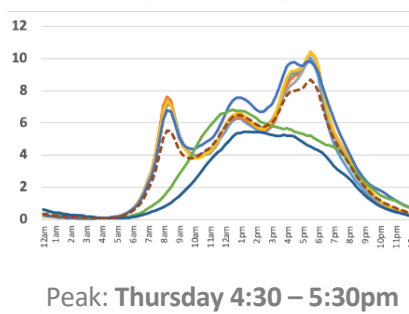➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX

Nebraska

Signals Analyzed: **1,563**
Signals Analyzed Rank: **33**
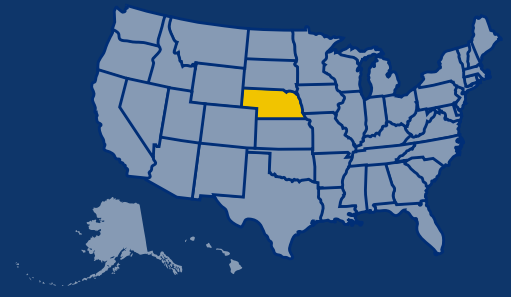
Estimated Crossings/Hour
(in Thousands)

Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Thursday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**
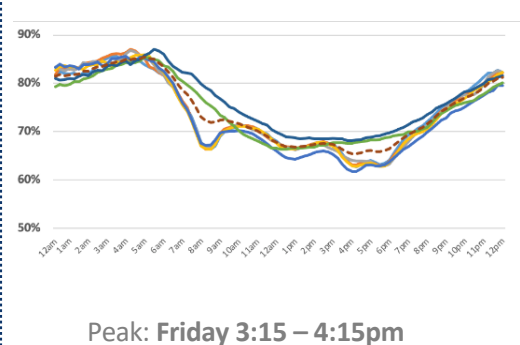
Signals by Weekly Average Level of Service:

A = 48%	B = 43%	C = 9%

Average Daily VOLUME

661

Observations / Signal
US Average: 619

Scaled Crossings (millions): **24**
Scaled Crossings/Signal: **15,700**

Weekly PERFORMANCE

12.0

Seconds Delay / Vehicle
US Average: 16.9   Rank: 50

Arrival on Green: **69.0%** (US Avg 62.8%; rank: 51)
Stops/Signal/Day: **4,900** (rank: 48)
Hours of Delay/Signal/Day: **52** (rank: 48)

Typical TRIP

5.1%

% Time Stopped at Signals
US Average: 6.8%   Rank: 28

Total Travel Time: **15.6 mins** (US Avg 17.0; rank: 50)
Signals Traversed: **3.9 mins** (US Avg 4.1; rank: 20)
Total Signal Delay: **0.79 mins** (US Avg 1.15; rank: 34)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
DOUGLAS	715	11.5	35,343	49	71.0%	3,206,423
LANCASTER	324	12.1	19,948	62	70.9%	1,725,708
SARPY	128	12.9	10,110	79	63.8%	1,019,274
HALL	57	13.5	2,327	41	61.7%	237,964
ADAMS	40	9.4	979	24	71.8%	105,483
MADISON	34	14.2	1,954	57	58.9%	203,513
BUFFALO	34	11.4	1,622	48	65.8%	175,398
LINCOLN	32	12.3	1,286	40	68.0%	120,875
SCOTTS BLUFF	31	13.2	1,267	41	60.4%	137,052
PLATTE	31	11.6	1,493	48	69.0%	143,240

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
S 27th St & O St	LANCASTER	51,768	435	30.3	46.7%	27,572
Nebraska Hwy & S 27th St	LANCASTER	60,926	419	24.8	43.9%	34,181
Q St & S 168th St	DOUGLAS	47,135	418	31.9	38.8%	28,848
S 72nd St & Pacific St	DOUGLAS	51,540	406	28.4	35.0%	33,483
S 48th St & O St	LANCASTER	48,474	365	27.1	48.6%	24,892
O St & S 70th St	LANCASTER	40,766	361	31.9	43.1%	23,177
Nebraska Hwy & S 14th St	LANCASTER	42,740	357	30.0	46.0%	23,090
Harrison St & S 168th St	SARPY	36,829	353	34.5	30.0%	25,777
S 144th St & Q St	DOUGLAS	54,838	335	22.0	45.5%	29,883
Hwy 6/31 & Hwy 370	SARPY	46,361	321	24.9	47.7%	24,253

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
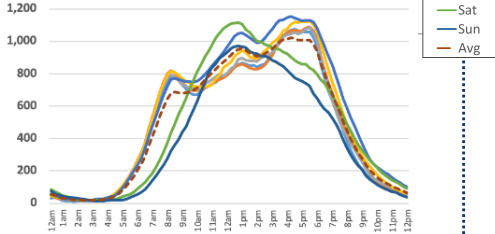➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

New Hampshire

Signals Analyzed: **763**
Signals Analyzed Rank: **40**
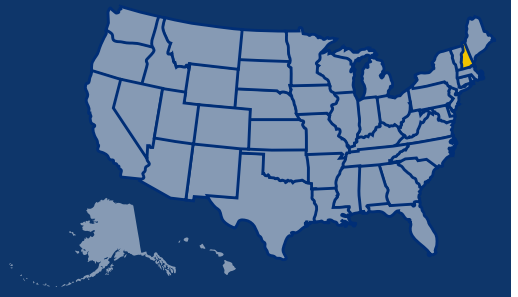
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
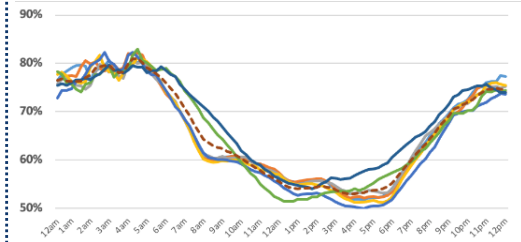
Peak: **Friday 3:15 – 4:15pm**

Total Hours Delay/Hour
(in Thousands)
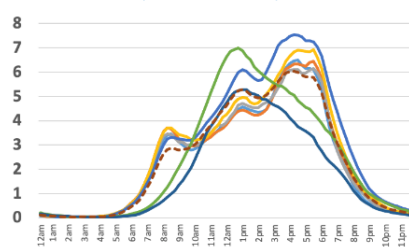
Peak: **Friday 3:15 – 4:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

A = 23%	B = 50%	C = 23%	D+ = 4%

Average Daily VOLUME

603

Observations / Signal
US Average: 619

Scaled Crossings (millions): **12**
Scaled Crossings/Signal: **15,800**

Weekly PERFORMANCE

17.3

Seconds Delay / Vehicle
US Average: 16.9   Rank: 17

Arrival on Green: **58.2%** (US Avg 62.8%; rank: 4)
Stops/Signal/Day: **6,600** (rank: 18)
Hours of Delay/Signal/Day: **76** (rank: 26)

Typical TRIP

4.4%

% Time Stopped at Signals
US Average: 6.8%   Rank: 35

Total Travel Time: **17.7 mins** (US Avg 17.0; rank: 13)
Signals Traversed: **2.7 mins** (US Avg 4.1; rank: 39)
Total Signal Delay: **0.79 mins** (US Avg 1.15; rank: 33)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HILLSBOROUGH	324	17.9	25,161	78	57.9%	2,130,439
ROCKINGHAM	176	17.5	15,031	85	56.5%	1,342,139
MERRIMACK	86	15.1	5,399	63	62.1%	487,163
STRAFFORD	48	15.3	2,885	60	59.1%	278,300
GRAFTON	45	17.0	2,735	61	59.8%	232,793
BELKNAP	31	14.9	2,141	69	61.3%	200,152
CARROLL	18	23.0	1,919	107	54.2%	137,649
SULLIVAN	14	13.2	935	67	66.0%	86,416
CHESHIRE	13	22.4	1,131	87	47.8%	94,742

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Boynton St & NH 114	HILLSBOROUGH	47,738	424	32.0	34.9%	31,076
Nashua Rd & Gilcreast Rd	ROCKINGHAM	32,168	360	40.2	33.2%	21,482
State Route 111	HILLSBOROUGH	31,941	349	39.3	40.5%	19,002
N Broadway & Main St	ROCKINGHAM	25,910	344	47.7	24.5%	19,564
New Rochester Rd & Indian Brook Dr	STRAFFORD	28,076	328	42.1	23.1%	21,596
NH 107 & Lafayette Rd	ROCKINGHAM	31,780	317	35.9	34.1%	20,934
Rockingham Park Blvd & S Broadway	ROCKINGHAM	28,731	300	37.6	34.8%	18,730
Fresh River Rd & Calef Hwy	ROCKINGHAM	34,617	297	30.8	40.6%	20,553
Loudon Rd	MERRIMACK	32,048	295	33.1	39.4%	19,414
Nashua Rd & Mammoth Rd	ROCKINGHAM	32,829	290	31.8	35.3%	21,251

Notes:

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➤ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
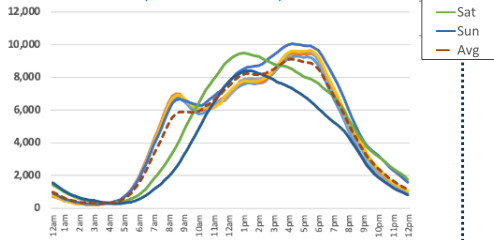➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

New Jersey

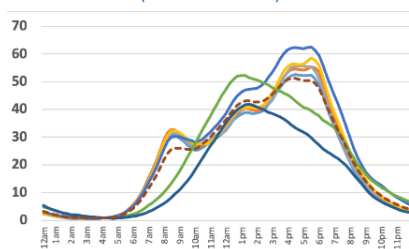Signals Analyzed: **7,771**
Signals Analyzed Rank: **8**
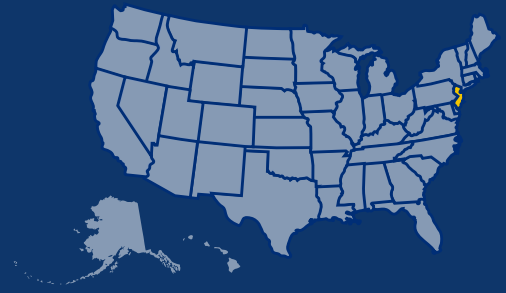
Estimated Crossings/Hour
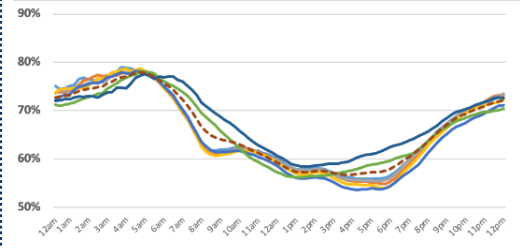### (in Thousands)

Peak: **Friday 3:15 – 4:15pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 20%	B = 47%	C = 29%	D+ = 3%

Average Daily VOLUME

474

Observations / Signal
US Average: 619

Scaled Crossings (millions): **110**
Scaled Crossings/Signal: **14,200**

Weekly PERFORMANCE

17.4

Seconds Delay / Vehicle
US Average: 16.9   Rank: 15

Arrival on Green: **60.5%** (US Avg 62.8%; rank: 12)
Stops/Signal/Day: **5,600** (rank: 38)
Hours of Delay/Signal/Day: **69** (rank: 35)

Typical TRIP

9.4%

% Time Stopped at Signals
US Average: 6.8%   Rank: 9

Total Travel Time: **16.4 mins** (US Avg 17.0; rank: 40)
Signals Traversed: **5.3 mins** (US Avg 4.1; rank: 7)
Total Signal Delay: **1.54 mins** (US Avg 1.15; rank: 9)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HUDSON	1,148	21.3	59,649	52	61.1%	3,929,860
ESSEX	1,103	20.0	64,643	59	54.8%	5,262,748
BERGEN	542	19.3	41,238	76	56.4%	3,357,279
MIDDLESEX	507	16.3	39,686	78	61.5%	3,366,588
ATLANTIC	478	15.4	25,050	52	65.8%	2,004,667
MONMOUTH	456	17.1	45,555	100	59.3%	3,889,459
OCEAN	453	15.0	37,539	83	65.3%	3,116,401
CAMDEN	450	17.6	36,640	81	61.1%	2,922,596
MERCER	381	15.3	19,362	51	61.5%	1,749,287
UNION	358	20.4	31,917	89	55.6%	2,503,927

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
LL World Champions Blvd & Lakewood Rd	OCEAN	76,814	700	32.8	40.0%	46,114
LL World Champions Blvd & Hooper Ave	OCEAN	77,417	683	31.8	44.1%	43,255
Berlin-Cross Keys Rd & N Black Horse Pike	GLOUCESTER	47,466	602	45.7	28.2%	34,096
JD Rockefeller Mem Hwy & Chambersbridge Rd	OCEAN	48,607	588	43.5	27.6%	35,215
NJ 73 & Fellowship Rd	BURLINGTON	81,426	553	24.5	49.3%	41,254
US 9 & Texas Rd	MIDDLESEX	65,192	551	30.4	35.0%	42,387
Main St & NJ 36	MONMOUTH	58,195	545	33.7	39.0%	35,481
Spring St & North Ave	UNION	51,037	522	36.8	37.6%	31,871
Somerdale Rd & E Evesham Rd	CAMDEN	41,503	509	44.1	28.3%	29,757
State Route 70 & Haddonfield Rd	CAMDEN	52,932	505	34.3	40.9%	31,309

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

New Mexico

Signals Analyzed: **1,331**
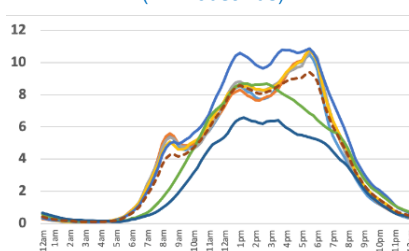Signals Analyzed Rank: **34**
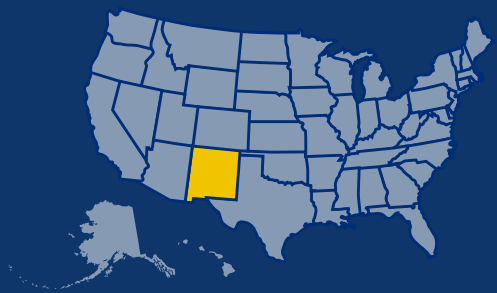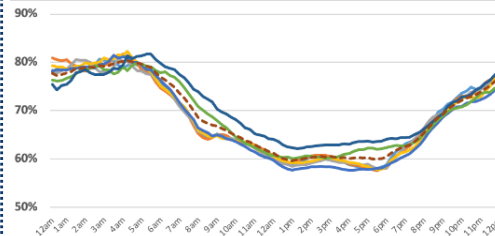
Estimated Crossings/Hour
(in Thousands)
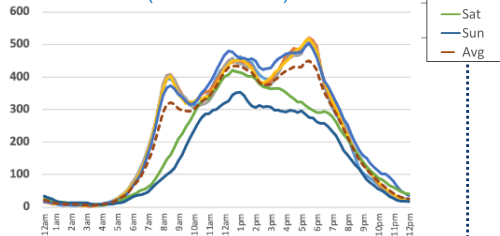
Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Tuesday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 39%   B = 45%   C = 15%   D+ = 1%

Average Daily VOLUME

595

Observations / Signal
US Average: 619

Scaled Crossings (millions): **23**
Scaled Crossings/Signal: **17,200**

Weekly PERFORMANCE

15.1

Seconds Delay / Vehicle
US Average: 16.9   Rank: 35

Arrival on Green: 63.2% (US Avg 62.8%; rank: 25)
Stops/Signal/Day: 6,300 (rank: 25)
Hours of Delay/Signal/Day: 72 (rank: 30)

Typical TRIP

5.2%

% Time Stopped at Signals
US Average: 6.8%   Rank: 25

Total Travel Time: 17.9 mins (US Avg 17.0; rank: 11)
Signals Traversed: 3.7 mins (US Avg 4.1; rank: 22)
Total Signal Delay: 0.93 mins (US Avg 1.15; rank: 24)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
BERNALILLO	709	15.5	56,458	80	63.8%	4,752,166
SANTA FE	127	15.4	7,297	57	63.0%	629,574
DONA ANA	121	17.1	9,214	76	59.2%	793,516
SANDOVAL	50	12.0	4,738	95	68.0%	454,147
CHAVES	39	16.4	3,211	82	58.8%	291,038
SAN JUAN	37	12.4	2,285	62	66.9%	219,610
CURRY	35	13.6	1,870	53	57.7%	208,678
VALENCIA	34	14.1	2,415	71	64.6%	218,648
EDDY	34	14.2	2,384	70	58.6%	250,200
LEA	22	18.0	2,365	107	55.5%	210,193

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Montano Rd NW & Coors Blvd NW	BERNALILLO	66,702	664	35.8	38.5%	41,043
Coors Blvd Bypass NW & Ellison Rd NW	BERNALILLO	52,934	562	38.3	30.0%	37,044
Coors Blvd NW	BERNALILLO	58,131	531	32.9	42.7%	33,319
US 550 & Camino Don Tomas	SANDOVAL	35,917	524	52.5	36.0%	22,982
Central Ave SW & Coors Blvd SW	BERNALILLO	43,399	518	42.9	31.5%	29,710
Unser Blvd & Sern Blvd SE	SANDOVAL	48,282	450	33.5	36.8%	30,517
Paseo del Norte Blvd NE & Wyoming Blvd NE	BERNALILLO	48,284	448	33.4	42.6%	27,691
San Mateo Blvd NE & Montgomery Blvd NE	BERNALILLO	56,322	446	28.5	34.5%	36,917
Cerrillos Rd & Rodeo Rd	SANTA FE	42,612	424	35.8	33.9%	28,172
Sern Blvd SE & Pat D'Arco Hwy	SANDOVAL	53,982	422	28.1	51.0%	26,453

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
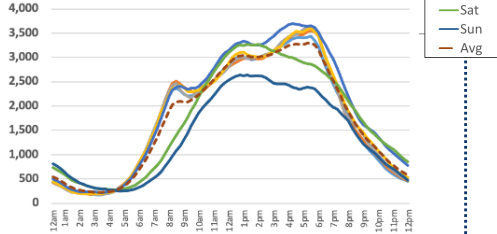➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard   **INRIX**

Nevada

Signals Analyzed: **1,713**
Signals Analyzed Rank: **30**
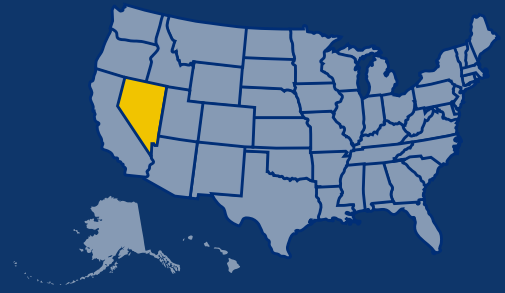
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
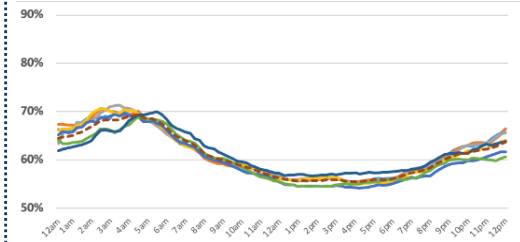
Peak: **Friday 3:15 – 4:15pm**

Total Hours Delay/Hour
(in Thousands)
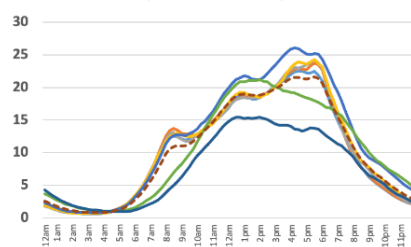
Peak: **Friday 3:15 – 4:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 25%	B = 40%	C = 28%	D+ = 8%

Average Daily VOLUME

706

Observations / Signal
US Average: **619**

Scaled Crossings (millions): **42**
Scaled Crossings/Signal: **24,600**

Weekly PERFORMANCE

21.1

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **1**

Arrival on Green: **58.1%** (US Avg 62.8%; rank: 3)
Stops/Signal/Day: **10,300** (rank: 1)
Hours of Delay/Signal/Day: **144** (rank: 1)

Typical TRIP

10.7%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **3**

Total Travel Time: **16.6 mins** (US Avg 17.0; rank: 36)
Signals Traversed: **5.1 mins** (US Avg 4.1; rank: 11)
Total Signal Delay: **1.78 mins** (US Avg 1.15; rank: 3)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
CLARK	1,219	22.1	203,766	167	57.7%	14,049,411
WASHOE	382	17.5	33,235	87	59.5%	2,768,474
CARSON CITY (CITY)	49	18.9	4,281	87	58.2%	340,267
DOUGLAS	19	16.2	2,144	113	60.3%	189,305
ELKO	19	13.9	1,345	71	64.0%	125,585

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W Flamingo Rd & S Las Vegas Blvd	CLARK	124,286	1,658	48.0	28.5%	88,897
Sands Ave & S Las Vegas Blvd	CLARK	72,116	1,455	72.7	21.8%	56,377
W Tropicana Ave & S Las Vegas Blvd	CLARK	105,432	1,206	41.2	36.3%	67,206
N Lamb Blvd & E Charleston Blvd	CLARK	57,256	1,081	68.0	20.8%	45,324
W Sahara Ave & S Las Vegas Blvd	CLARK	82,971	1,018	44.2	34.9%	53,994
S Eern Ave & St Rose Pkwy	CLARK	83,987	884	37.9	41.1%	49,443
S Fort Apache Rd & W Flamingo Rd	CLARK	63,293	767	43.6	32.9%	42,493
Blue Diamond Rd & S Rainbow Blvd	CLARK	78,578	762	34.9	37.0%	49,532
MGM Rd & S Las Vegas Blvd	CLARK	67,286	735	39.3	39.1%	40,947
E Tropicana Ave & S Pecos Rd	CLARK	47,363	733	55.7	24.4%	35,810

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
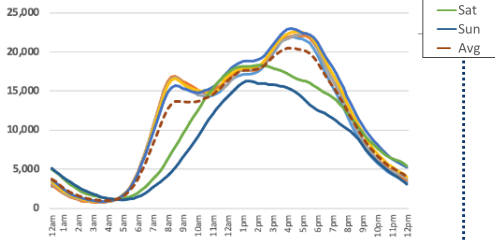➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

New York

Signals Analyzed: **18,560**
Signals Analyzed Rank: **2**
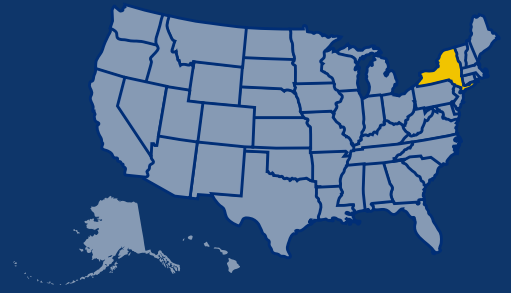
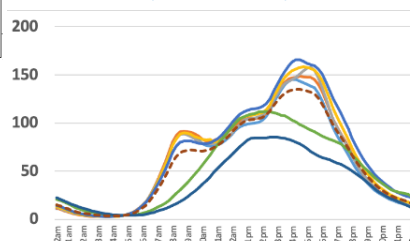## Estimated Crossings/Hour
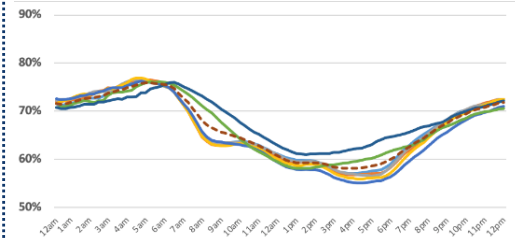### (in Thousands)

Peak: **Friday 3:15 – 4:15pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 14%	B = 43%	C = 36%	D+ = 7%

Average Daily VOLUME

438

Observations / Signal
US Average: 619

Scaled Crossings (millions): **258**
Scaled Crossings/Signal: **13,900**

Weekly PERFORMANCE

20.0

Seconds Delay / Vehicle
US Average: 16.9   Rank: 3

Arrival on Green: **61.8%** (US Avg 62.8%; rank: 20)
Stops/Signal/Day: **5,300** (rank: 44)
Hours of Delay/Signal/Day: **77** (rank: 24)

Typical TRIP

10.3%

% Time Stopped at Signals
US Average: 6.8%   Rank: 4

Total Travel Time: **16.1 mins** (US Avg 17.0; rank: 41)
Signals Traversed: **5.0 mins** (US Avg 4.1; rank: 12)
Total Signal Delay: **1.65 mins** (US Avg 1.15; rank: 6)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
KINGS	3,886	23.5	303,116	78	59.4%	18,862,967
QUEENS	2,743	23.2	202,809	74	57.9%	13,243,874
NEW YORK	2,512	23.4	257,021	102	67.3%	12,948,027
NASSAU	1,354	17.8	140,509	104	66.4%	9,579,153
BRONX	1,012	27.9	75,212	74	51.7%	4,689,664
ERIE	996	16.3	79,709	80	61.0%	6,844,085
WESTCHESTER	761	17.9	41,193	54	59.4%	3,366,805
MONROE	698	13.9	48,971	70	64.9%	4,440,186
ONONDAGA	566	15.0	28,578	50	61.9%	2,608,663
ALBANY	514	15.3	25,841	50	62.8%	2,262,270

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Atlantic Ave & 4th Ave	KINGS	76,331	1,086	51.2	46.1%	41,105
Long Beach Blvd & E Park Ave	NASSAU	95,596	1,046	39.4	27.7%	69,110
Pennsylvania Ave & Atlantic Ave	KINGS	67,066	979	52.5	35.8%	43,023
Tillary St & Flatbush Ave Extension	KINGS	74,298	938	45.4	35.1%	48,206
N Hempstead Turnpike & Glen Cove Rd	NASSAU	60,872	926	54.8	27.9%	43,916
Major Deegan Expwy & E 138th St	BRONX	50,511	821	58.5	28.1%	36,309
Thomson Ave & Van Dam St	QUEENS	64,431	789	44.1	43.4%	36,456
Searingtown Rd & Northern Blvd	NASSAU	49,411	756	55.0	24.8%	37,145
W Sunrise Hwy & S Central Ave	NASSAU	55,405	750	48.7	30.4%	38,537
N Wantagh Ave & Hempstead Turnpike	NASSAU	59,148	748	45.5	29.3%	41,794

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Ohio

Signals Analyzed: **9,251**

Signals Analyzed Rank: **6**
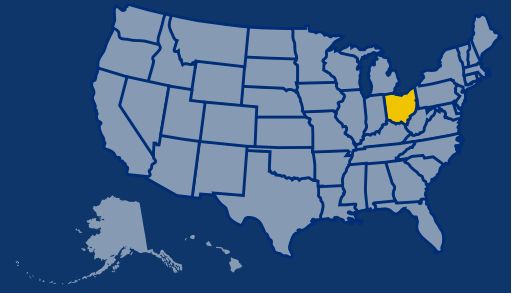
Estimated Crossings/Hour
(in Thousands)
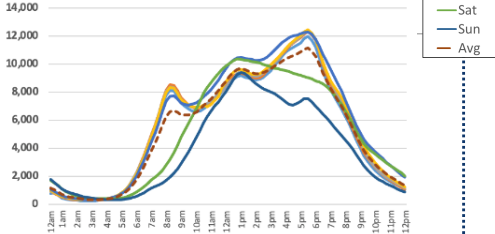
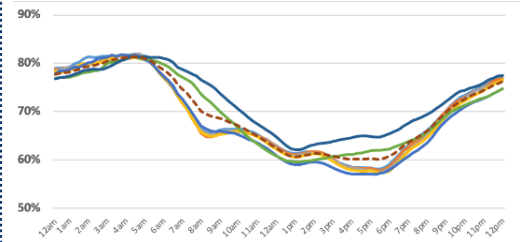Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
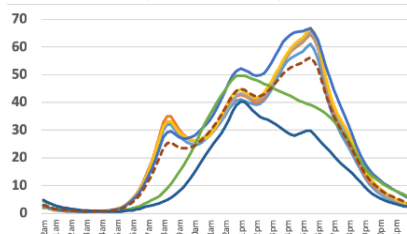
Peak: **Thursday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:15 – 5:15pm**

Signals by Weekly Average Level of Service:

| A = 36% | B = 46% | C = 16% | D+ = 1% |

Average Daily VOLUME

659

Observations / Signal

US Average: **619**

Scaled Crossings (millions): **129**
Scaled Crossings/Signal: **14,000**

Weekly PERFORMANCE

15.1

Seconds Delay / Vehicle

US Average: **16.9**   Rank: **34**

Arrival on Green: **64.1%** (US Avg 62.8%; rank: 33)
Stops/Signal/Day: **5,000** (rank: 47)
Hours of Delay/Signal/Day: **59** (rank: 46)

Typical TRIP

6.4%

% Time Stopped at Signals

US Average: **6.8%**   Rank: **18**

Total Travel Time: **16.1 mins** (US Avg 17.0; rank: 42)
Signals Traversed: **4.1 mins** (US Avg 4.1; rank: 16)
Total Signal Delay: **1.04 mins** (US Avg 1.15; rank: 21)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
CUYAHOGA	1,580	16.3	80,975	51	62.4%	6,737,574
HAMILTON	1,453	14.8	82,870	57	66.5%	6,752,735
FRANKLIN	1,034	16.1	66,477	64	63.4%	5,432,613
SUMMIT	691	14.9	37,154	54	63.8%	3,237,783
LUCAS	635	14.2	33,934	53	65.0%	3,015,410
MONTGOMERY	495	14.4	29,101	59	64.7%	2,574,626
BUTLER	413	15.2	32,072	78	66.5%	2,552,089
WARREN	216	14.9	18,482	86	65.6%	1,537,667
STARK	183	15.1	12,008	66	59.4%	1,159,480
RICHLAND	168	14.0	6,961	41	63.3%	658,473

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Glen Este-Withamsville Rd	CLERMONT	71,587	753	37.9	42.0%	41,517
High St & N Erie Blvd	BUTLER	61,233	698	41.1	38.2%	37,866
South Ave & Boardman Poland Rd	MAHONING	52,605	659	45.1	31.1%	36,225
Princeton Rd & Bypass 4	BUTLER	56,815	574	36.4	33.1%	38,037
Miamisburg Centerville Rd & Springboro Pike	MONTGOMERY	45,778	549	43.2	27.0%	33,429
Tussing Rd & Hill Rd N	FAIRFIELD	56,853	548	34.7	36.9%	35,876
S Mason Montgomery Rd & Tylersville Rd	WARREN	51,232	536	37.7	35.8%	32,885
Tremainsville Rd & Douglas Rd	LUCAS	33,352	525	56.7	17.4%	27,561
High St & N Martin Luther King Junior Blvd	BUTLER	54,648	518	34.1	48.7%	28,059
Columbus Pike & E Powell Rd	DELAWARE	55,633	501	32.4	46.6%	29,729

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
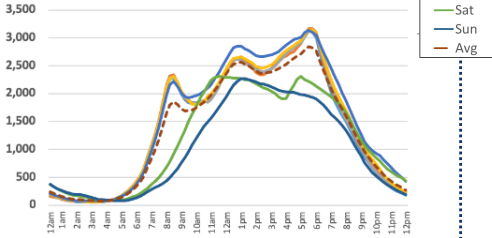➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Oklahoma

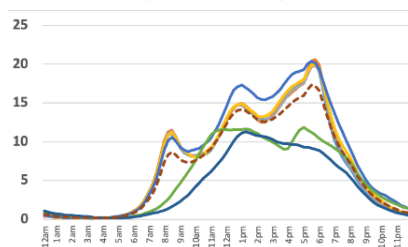Signals Analyzed: **2,277**
Signals Analyzed Rank: **25**
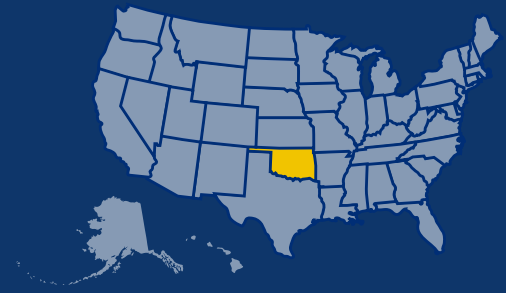
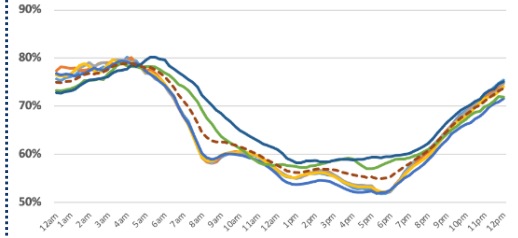## Estimated Crossings/Hour
(in Thousands)

Peak: **Tuesday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Tuesday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Monday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 33%	B = 42%	C = 22%	D+ = 3%

Average Daily VOLUME

656

Observations / Signal
US Average: 619

Scaled Crossings (millions): **33**
Scaled Crossings/Signal: **14,300**

Weekly PERFORMANCE

17.9

Seconds Delay / Vehicle
US Average: 16.9   Rank: 10

Arrival on Green: **58.8%** (US Avg 62.8%; rank: 7)
Stops/Signal/Day: **5,900** (rank: 27)
Hours of Delay/Signal/Day: **71** (rank: 31)

Typical TRIP

4.9%

% Time Stopped at Signals
US Average: 6.8%   Rank: 30

Total Travel Time: **17.2 mins** (US Avg 17.0; rank: 23)
Signals Traversed: **2.8 mins** (US Avg 4.1; rank: 35)
Total Signal Delay: **0.84 mins** (US Avg 1.15; rank: 29)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
OKLAHOMA	898	18.6	61,659	69	59.2%	4,859,634
TULSA	413	18.7	35,537	86	58.5%	2,847,283
CLEVELAND	216	19.2	19,101	88	57.6%	1,518,616
PAYNE	72	17.0	5,186	72	59.3%	447,606
MUSKOGEE	57	14.6	3,264	57	58.8%	331,112
CANADIAN	51	19.9	5,266	103	51.2%	465,502
POTTAWATOMIE	48	14.3	2,474	52	58.2%	259,653
CARTER	41	17.5	2,342	57	57.3%	205,920
KAY	32	10.7	667	21	65.4%	77,713
COMANCHE	30	18.0	2,397	80	57.7%	202,492

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
S Broadway St & E 15th St	OKLAHOMA	45,343	604	48.0	33.0%	30,358
E 33rd St & S Broadway	OKLAHOMA	47,784	598	45.0	32.8%	32,095
E 2nd St & S Bryant Ave	OKLAHOMA	36,311	535	53.1	28.2%	26,057
S Memorial Dr & E 71st St S	TULSA	42,697	489	41.2	30.9%	29,498
24th Ave NW & W Main St	CLEVELAND	38,532	483	45.1	31.8%	26,276
W Kenosha St & N Elm Place	TULSA	41,127	481	42.1	36.3%	26,217
W 141st St & Okmulgee Beeline	TULSA	49,353	456	33.2	52.0%	23,711
NE 150th St & N Kelly Ave	OKLAHOMA	38,085	455	43.0	34.4%	24,992
NW Expwy & N Rockwell Ave	OKLAHOMA	44,354	438	35.6	35.3%	28,677
E 71st St S & S Mingo Rd	TULSA	38,525	434	40.6	35.3%	24,912

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
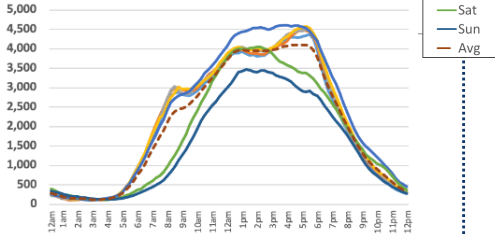➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Oregon

Signals Analyzed: **3,071**

Signals Analyzed Rank: **22**
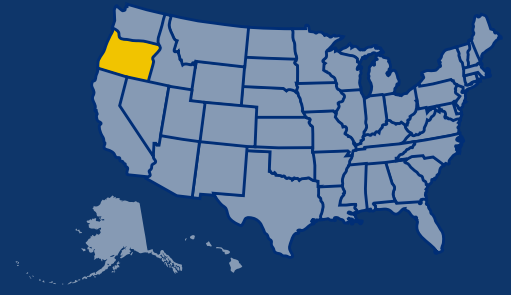
Estimated Crossings/Hour
(in Thousands)

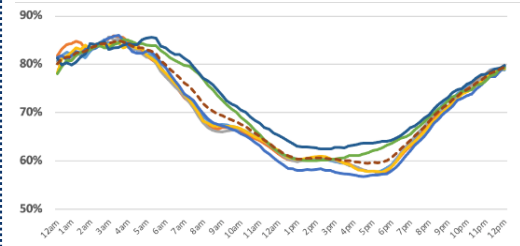Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 2:45 – 3:45pm**

Total Hours Delay/Hour
(in Thousands)
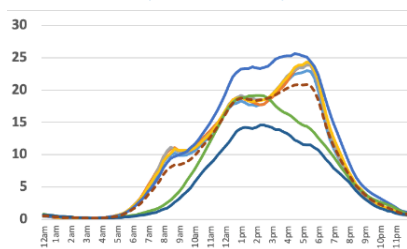
Peak: **Friday 3:30 – 4:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

A = 38% | B = 46% | C = 14% | D+ = 1%

Average Daily VOLUME

288

Observations / Signal

US Average: 619

Scaled Crossings (millions): **49**
Scaled Crossings/Signal: **16,000**

Weekly PERFORMANCE

14.8

Seconds Delay / Vehicle

US Average: 16.9   Rank: 39

Arrival on Green: **64.1%** (US Avg 62.8%; rank: 32)
Stops/Signal/Day: **5,700** (rank: 37)
Hours of Delay/Signal/Day: **66** (rank: 37)

Typical TRIP

6.6%

% Time Stopped at Signals

US Average: 6.8%   Rank: 17

Total Travel Time: **16.7 mins** (US Avg 17.0; rank: 32)
Signals Traversed: **4.5 mins** (US Avg 4.1; rank: 15)
Total Signal Delay: **1.11 mins** (US Avg 1.15; rank: 16)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MULTNOMAH	1,112	15.5	55,665	50	63.0%	4,766,886
WASHINGTON	509	15.6	45,107	89	64.6%	3,673,883
LANE	294	13.8	15,703	53	64.4%	1,464,029
MARION	245	14.2	19,418	79	65.6%	1,694,118
CLACKAMAS	202	14.2	16,090	80	66.2%	1,376,244
JACKSON	150	15.6	11,935	80	59.6%	1,110,738
DESCHUTES	82	17.6	8,092	99	57.7%	698,320
BENTON	71	12.0	2,941	41	65.3%	305,828
LINN	65	13.8	4,674	72	63.6%	444,966
DOUGLAS	53	13.6	3,636	69	65.2%	334,212

Top 10 Intersections by Total Delay

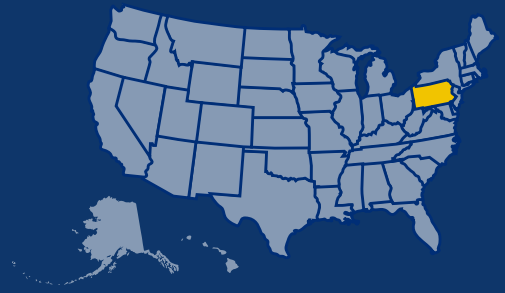| Name	County	ADT	DHD	D/V	AOG (%)	Stops
SW Tualatin Valley Hwy & SW Murray Blvd	WASHINGTON	49,389	624	45.5	32.8%	33,202
NE Hogan Dr & SE Stark St	MULTNOMAH	54,027	583	38.8	35.0%	35,096
NE Evergreen Pkwy & NW 185th Ave	WASHINGTON	52,666	578	39.5	32.5%	35,545
NE Hogan Dr & NE Burnside Rd	MULTNOMAH	56,360	561	35.8	49.0%	28,753
SW Tualatin Valley Hwy & SW 185th Ave	WASHINGTON	49,201	524	38.3	32.9%	33,002
SE Reed Market Rd & SE 3rd St	DESCHUTES	34,054	507	53.6	21.2%	26,835
N Riverside Ave & Crater Lake Hwy	JACKSON	51,522	483	33.8	32.4%	34,804
SW Pacific Hwy & SW Hall Blvd	WASHINGTON	59,013	469	28.6	49.7%	29,654
Beavercreek Rd & Cascade Hwy	CLACKAMAS	53,445	466	31.4	29.8%	37,493
SW Roy Rogers Rd & SW Pacific Hwy	WASHINGTON	43,007	465	38.9	35.1%	27,901

Notes:

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➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
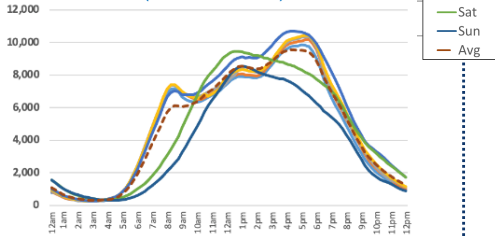➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

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Pennsylvania

Signals Analyzed: **8,837**

Signals Analyzed Rank: **7**

Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
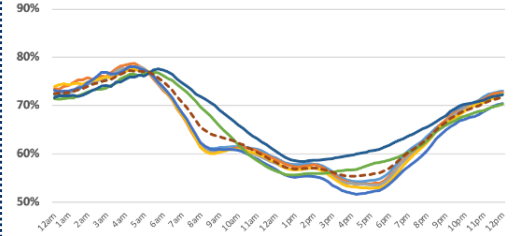
Peak: **Friday 3:30 – 4:30pm**

Total Hours Delay/Hour
(in Thousands)
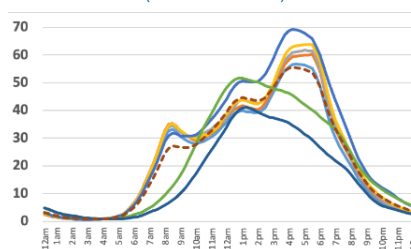
Peak: **Friday 3:15 – 4:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 23%	B = 50%	C = 24%	D+ = 3%

Average Daily VOLUME

495

Observations / Signal

US Average: 619

Scaled Crossings (millions): **116**
Scaled Crossings/Signal: **13,200**

Weekly PERFORMANCE

17.3

Seconds Delay / Vehicle

US Average: 16.9   Rank: 19

Arrival on Green: **59.7%** (US Avg 62.8%; rank: 10)
Stops/Signal/Day: **5,300** (rank: 43)
Hours of Delay/Signal/Day: **63** (rank: 42)

Typical TRIP

6.4%

% Time Stopped at Signals

US Average: 6.8%   Rank: 19

Total Travel Time: **16.5 mins** (US Avg 17.0; rank: 38)
Signals Traversed: **3.7 mins** (US Avg 4.1; rank: 23)
Total Signal Delay: **1.06 mins** (US Avg 1.15; rank: 18)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
PHILADELPHIA	1,549	20.5	96,626	62	55.1%	7,604,087
ALLEGHENY	1,265	18.3	84,353	67	60.8%	6,498,387
MONTGOMERY	671	17.5	54,374	81	59.3%	4,538,091
DELAWARE	484	18.4	34,714	72	58.1%	2,848,227
LANCASTER	367	17.7	25,309	69	58.7%	2,126,429
BUCKS	362	16.6	32,972	91	61.3%	2,758,296
CHESTER	339	15.3	21,050	62	61.3%	1,908,525
LEHIGH	297	16.2	18,909	64	58.1%	1,755,634
ERIE	291	13.8	11,982	41	64.3%	1,114,429
LUZERNE	249	16.1	13,393	54	60.2%	1,190,001

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Library Rd & Saw Mill Run Blvd	ALLEGHENY	44,916	809	64.8	35.0%	29,207
St Rd & Bustleton Pike	BUCKS	46,084	656	51.2	21.0%	36,426
York Rd & West St Rd	BUCKS	48,741	652	48.2	24.8%	36,660
William Penn Hwy & Haymaker Rd	ALLEGHENY	45,970	633	49.6	26.6%	33,742
Connor Rd & Washington Rd	ALLEGHENY	37,836	577	54.9	27.4%	27,483
Bartram Ave & Island Ave	PHILADELPHIA	49,845	562	40.6	32.3%	33,726
Byberry Rd & Bustleton Ave	PHILADELPHIA	41,796	557	48.0	25.5%	31,129
Privet Rd & Easton Rd	BUCKS	42,195	536	45.8	32.6%	28,420
Roosevelt Ave & Loucks Rd	YORK	53,033	534	36.2	47.4%	27,884
Maytide St & Saw Mill Run Blvd	ALLEGHENY	37,059	513	49.9	44.8%	20,452

Notes:

- The methodology used to generate results shown is detailed in Appendix A of the Scorecard
- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
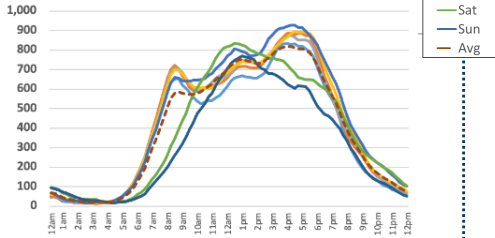- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

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Rhode Island

Signals Analyzed: **640**
Signals Analyzed Rank: **42**
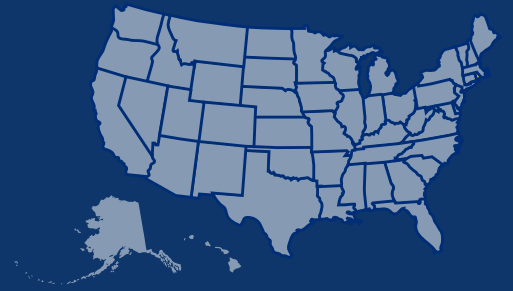
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
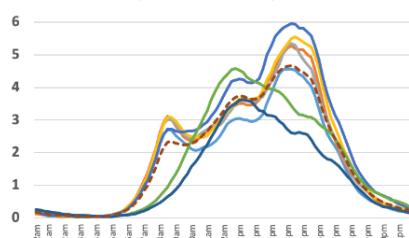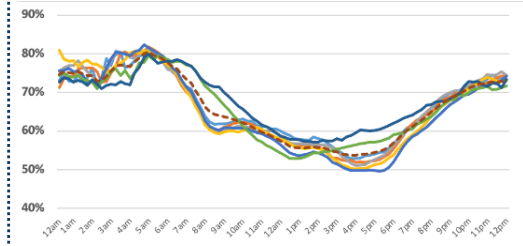
Peak: **Friday 3:15 – 4:15pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:15 – 4:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:15 – 5:15pm**

Signals by Weekly Average Level of Service:

A = 27%	B = 47%	C = 24%	D+ = 3%

Average Daily VOLUME

444

Observations / Signal
US Average: 619

Scaled Crossings (millions): **10**
Scaled Crossings/Signal: **15,200**

Weekly PERFORMANCE

16.2

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **25**

Arrival on Green: **58.4%** (US Avg 62.8%; rank: 5)
Stops/Signal/Day: **6,300** (rank: 24)
Hours of Delay/Signal/Day: **69** (rank: 34)

Typical TRIP

6.0%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **22**

Total Travel Time: **16.0 mins** (US Avg 17.0; rank: 46)
Signals Traversed: **3.5 mins** (US Avg 4.1; rank: 24)
Total Signal Delay: **0.96 mins** (US Avg 1.15; rank: 23)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
PROVIDENCE	378	18.1	24,749	65	53.4%	2,296,898
KENT	155	14.9	11,399	74	62.7%	1,029,663
WASHINGTON	60	12.4	4,149	69	66.7%	402,570
NEWPORT	43	14.6	3,094	72	63.2%	280,984

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Warwick Ave & Airport Rd	KENT	40,509	539	47.9	29.1%	28,721
East Ave & Bald Hill Rd	KENT	37,015	478	46.5	20.8%	29,331
Tower Hill Rd & Mooresfield Rd	WASHINGTON	52,915	433	29.5	38.9%	32,324
Bald Hill Rd & Toll Gate Rd	KENT	30,632	319	37.5	30.0%	21,452
Park Ave & Reservoir Ave	PROVIDENCE	25,018	318	45.8	21.5%	19,643
Cedar Swamp Rd & Putnam Pike	PROVIDENCE	29,974	306	36.8	34.2%	19,713
Putnam Pike	PROVIDENCE	44,113	302	24.7	48.3%	22,792
Westerly Bypass & Franklin St	WASHINGTON	34,240	291	30.6	32.9%	22,991
Atwood Ave & Hartford Ave	PROVIDENCE	21,881	280	46.1	21.7%	17,127
Division St & Quaker Lane	KENT	30,138	277	33.1	26.3%	22,211

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

South Carolina

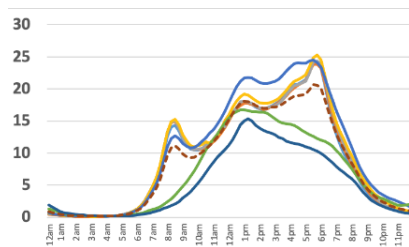Signals Analyzed: **2,263**

Signals Analyzed Rank: **26**
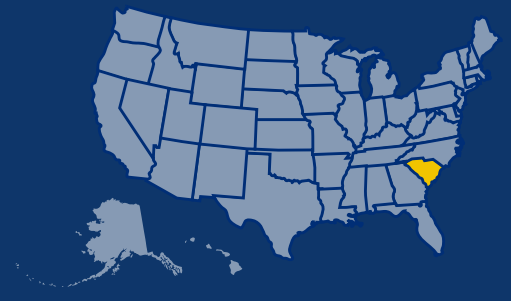
Estimated Crossings/Hour
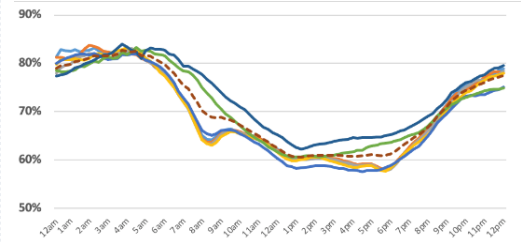(in Thousands)
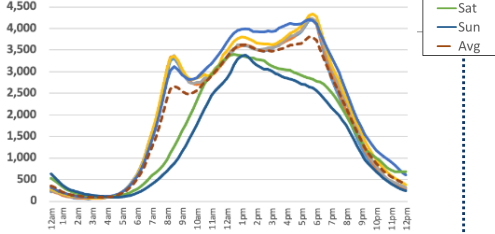
Peak: **Thursday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Thursday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

A = 36%	B = 43%	C = 17%	D+ = 3%

Average Daily VOLUME

685

Observations / Signal

US Average: 619

Scaled Crossings (millions): **46**

Scaled Crossings/Signal: **20,300**

Weekly PERFORMANCE

15.8

Seconds Delay / Vehicle

US Average: **16.9** Rank: **29**

Arrival on Green: **63.8%** (US Avg 62.8%; rank: 29)

Stops/Signal/Day: **7,400** (rank: 8)

Hours of Delay/Signal/Day: **90** (rank: 10)

Typical TRIP

4.6%

% Time Stopped at Signals

US Average: **6.8%** Rank: **33**

Total Travel Time: **18.1 mins** (US Avg 17.0; rank: 8)

Signals Traversed: **3.1 mins** (US Avg 4.1; rank: 31)

Total Signal Delay: **0.82 mins** (US Avg 1.15; rank: 30)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
GREENVILLE	506	16.2	45,456	90	63.5%	3,681,316
SPARTANBURG	231	15.1	17,918	78	65.3%	1,478,397
RICHLAND	208	16.7	18,053	87	63.7%	1,411,973
HORRY	208	14.7	20,930	101	65.3%	1,774,367
YORK	195	15.4	18,379	94	63.0%	1,591,100
CHARLESTON	157	17.8	17,973	114	64.3%	1,299,630
ANDERSON	155	14.6	10,547	68	64.1%	935,656
LEXINGTON	102	16.8	11,349	111	63.8%	878,670
FLORENCE	69	17.7	7,656	111	55.1%	697,932
PICKENS	66	15.9	5,662	86	63.6%	465,833

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W Wade Hampton Blvd & S Buncombe Rd	GREENVILLE	60,897	795	47.0	34.9%	39,624
Celanese Rd & Mount Gallant Rd	YORK	68,378	671	35.3	40.3%	40,819
US 501 & Carolina Forest Blvd	HORRY	56,915	668	42.2	56.3%	24,869
N Pleasantburg Dr & E N St	GREENVILLE	54,577	594	39.2	35.7%	35,110
Tiger Blvd & College Ave	PICKENS	49,321	582	42.5	36.7%	31,239
E Blackstock Rd & John B White Sr Blvd	SPARTANBURG	59,548	580	35.1	42.9%	34,019
US 17 & Dingle Rd	CHARLESTON	58,921	576	35.2	49.6%	29,690
E Blackstock Rd & W O Ezell Blvd	SPARTANBURG	47,065	572	43.7	32.5%	31,778
E Blue Ridge Dr & Poinsett Hwy	GREENVILLE	50,769	557	39.5	37.0%	31,976
W Palmetto St & S Cashua Dr	FLORENCE	36,512	547	53.9	22.7%	28,222

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments

➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings

➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
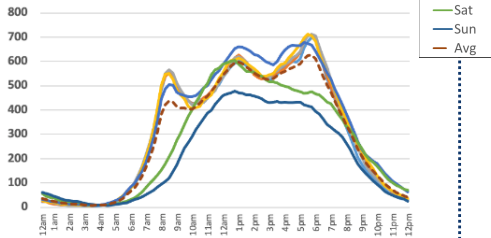
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

South Dakota

Signals Analyzed: **569**
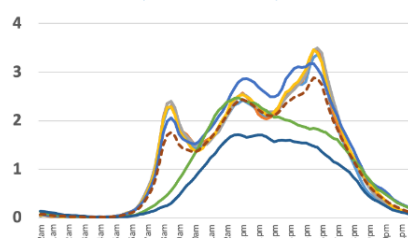Signals Analyzed Rank: **44**
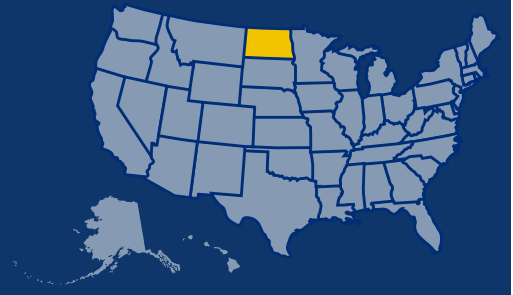
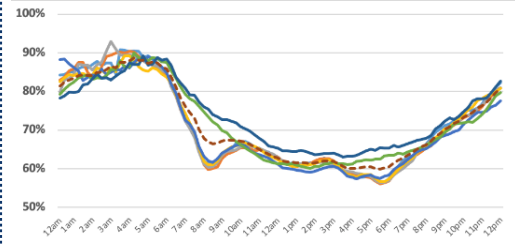## Estimated Crossings/Hour
(in Thousands)

Peak: **Wednesday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Wednesday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Tuesday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 40%   B = 44%   C = 14%   D+ = 2%

Average Daily VOLUME

575

Observations / Signal
US Average: 619

Scaled Crossings (millions): **7**
Scaled Crossings/Signal: **12,700**

Weekly PERFORMANCE

13.8

Seconds Delay / Vehicle
US Average: 16.9   Rank: 47

Arrival on Green: **63.9%** (US Avg 62.8%; rank: 30)
Stops/Signal/Day: **4,600** (rank: 50)
Hours of Delay/Signal/Day: **48** (rank: 49)

Typical TRIP

3.4%

% Time Stopped at Signals
US Average: 6.8%   Rank: 42

Total Travel Time: **17.0 mins** (US Avg 17.0; rank: 25)
Signals Traversed: **2.5 mins** (US Avg 4.1; rank: 40)
Total Signal Delay: **0.58 mins** (US Avg 1.15; rank: 41)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MINNEHAHA	217	15.1	12,996	60	62.5%	1,160,648
PENNINGTON	106	13.0	4,902	46	66.5%	453,967
BROWN	34	11.7	1,424	42	65.7%	149,507
BROOKINGS	31	9.9	932	30	69.8%	102,830
CODINGTON	25	13.7	1,143	46	61.0%	116,784
DAVISON	25	12.5	719	29	63.9%	74,760
LINCOLN	24	15.9	2,012	84	57.6%	193,303
LAWRENCE	22	12.4	615	28	65.0%	62,152
HUGHES	17	12.5	827	49	65.3%	82,412
BEADLE	15	10.5	432	29	71.4%	42,525

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W 41st St & S Minnesota Ave	MINNEHAHA	32,848	381	41.8	31.8%	22,413
E 10th St & S Sycamore Ave	MINNEHAHA	30,608	310	36.5	37.0%	19,283
E 10th St & S Cleveland Ave	MINNEHAHA	37,096	306	29.7	44.9%	20,430
W 41st St & S Kiwanis Ave	MINNEHAHA	41,221	274	23.9	44.7%	22,812
S Cliff Ave & E 10th St	MINNEHAHA	29,610	271	32.9	30.4%	20,606
S Kiwanis Ave & W 12th St	MINNEHAHA	35,089	262	26.8	47.9%	18,278
E Omaha St & Cambell St	PENNINGTON	26,818	258	34.7	31.9%	18,275
W 49th St & S Louise Ave	MINNEHAHA	33,018	255	27.8	43.1%	18,777
S Louise Ave & W 69th St	LINCOLN	31,526	244	27.8	37.6%	19,683
S Wern Ave & W 41st St	MINNEHAHA	24,030	241	36.1	28.7%	17,130

Notes:

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➤ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➤ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Tennessee

Signals Analyzed: **1,946**

Signals Analyzed Rank: **28**

Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
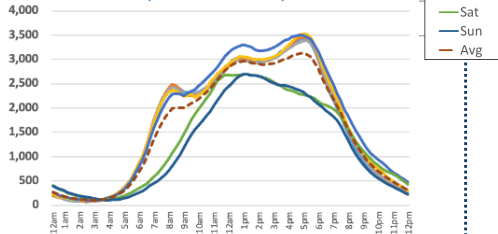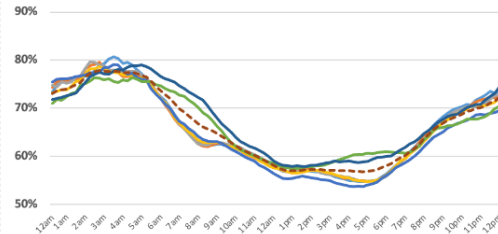
Peak: **Thursday 4:00 – 5:00pm**

Total Hours Delay/Hour
(in Thousands)
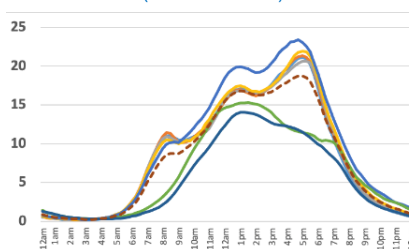
Peak: **Friday 3:45 – 4:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:45 – 4:45pm**

Signals by Weekly Average Level of Service:

| A = 26% | B = 46% | C = 24% | D+ = 4% |

Average Daily VOLUME

648

Observations / Signal

US Average: 619

Scaled Crossings (millions): **38**
Scaled Crossings/Signal: **19,700**

Weekly PERFORMANCE

18.1

Seconds Delay / Vehicle

US Average: **16.9**   Rank: **7**

Arrival on Green: **60.6%** (US Avg 62.8%; rank: 13)
Stops/Signal/Day: **7,800** (rank: 7)
Hours of Delay/Signal/Day: **99 (rank: 5)**

Typical TRIP

3.5%

% Time Stopped at Signals

US Average: **6.8%**   Rank: **40**

Total Travel Time: **18.5 mins** (US Avg 17.0; rank: 4)
Signals Traversed: **2.2 mins** (US Avg 4.1; rank: 44)
Total Signal Delay: **0.65 mins** (US Avg 1.15; rank: 39)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
SHELBY	513	17.1	52,697	103	60.7%	4,348,266
DAVIDSON	364	19.6	31,282	86	62.8%	2,137,541
KNOX	144	20.3	14,330	100	56.1%	1,119,092
RUTHERFORD	128	18.3	15,505	121	61.4%	1,174,594
HAMILTON	116	17.2	11,708	101	60.8%	960,012
WILLIAMSON	75	18.2	7,802	104	57.8%	653,030
SULLIVAN	71	11.8	4,060	57	69.4%	380,418
WASHINGTON	41	19.1	4,023	98	56.2%	332,849
ANDERSON	38	13.5	2,960	78	66.8%	261,808
SEVIER	33	32.9	14,948	453	56.1%	717,518

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Pkwy & Wears Valley Rd	SEVIER	94,958	1,555	58.9	33.6%	63,089
E Pkwy & Pkwy	SEVIER	52,310	1,245	85.7	17.7%	43,042
N Pkwy & E Main St	SEVIER	72,602	1,013	50.2	28.4%	51,976
Sugar Hollow Rd & Pkwy	SEVIER	100,598	939	33.6	54.4%	45,915
Pkwy & Cherokee Orchard Rd	SEVIER	41,475	907	78.8	38.1%	25,688
Forks of the River Pkwy & W Main St	SEVIER	61,107	872	51.3	29.4%	43,145
Greystone Heights Rd & River Rd	SEVIER	49,056	810	59.5	39.3%	29,765
Pkwy & Teaster Lane	SEVIER	92,560	769	29.9	63.0%	34,249
Historic Nature Trail & Pkwy	SEVIER	26,972	755	100.7	13.3%	23,386
S Germantown Rd & Wolf River Blvd	SHELBY	56,527	641	40.8	33.6%	37,512

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
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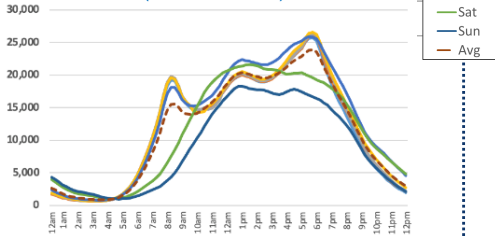➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Texas

Signals Analyzed: 18,024
Signals Analyzed Rank: 3
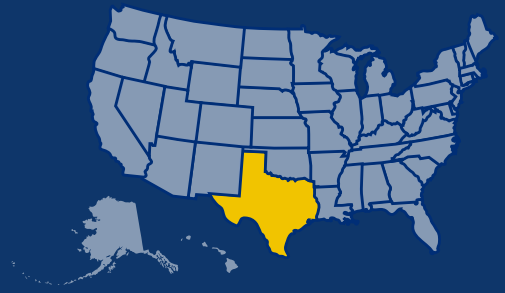
Estimated Crossings/Hour
(in Thousands)

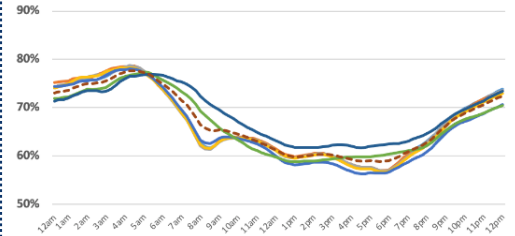Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Thursday 4:45 – 5:45pm**

Total Hours Delay/Hour
(in Thousands)
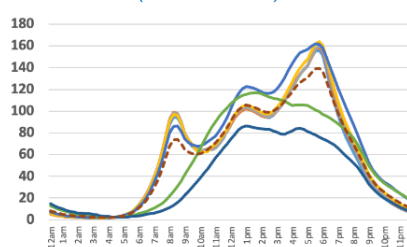
Peak: **Thursday 4:45 – 5:45pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:30 – 4:30pm**

Signals by Weekly Average Level of Service:

A = 28%	B = 43%	C = 25%	D+ = 3%

Average Daily VOLUME

801

Observations / Signal
US Average: 619

Scaled Crossings (millions): **282**
Scaled Crossings/Signal: **15,600**

Weekly PERFORMANCE

17.5

Seconds Delay / Vehicle
US Average: 16.9 Rank: 12

Arrival on Green: **62.2%** (US Avg 62.8%; rank: 21)
Stops/Signal/Day: **5,900** (rank: 29)
Hours of Delay/Signal/Day: **76** (rank: 27)

Typical TRIP

6.6%

% Time Stopped at Signals
US Average: 6.8% Rank: 16

Total Travel Time: **17.4 mins** (US Avg 17.0; rank: 17)
Signals Traversed: **4.0 mins** (US Avg 4.1; rank: 19)
Total Signal Delay: **1.15 mins** (US Avg 1.15; rank: 15)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
HARRIS	3,019	19.0	242,822	80	61.5%	17,691,825
DALLAS	2,487	17.2	161,280	65	62.7%	12,588,140
TARRANT	1,687	18.1	136,475	81	62.1%	10,303,095
BEXAR	1,227	16.0	64,512	53	66.5%	4,879,023
TRAVIS	1,054	17.4	77,812	74	65.9%	5,485,501
HIDALGO	637	17.4	50,382	79	54.6%	4,735,706
COLLIN	616	17.6	72,870	118	62.3%	5,605,209
DENTON	482	17.5	50,701	105	62.6%	3,893,208
EL PASO	435	14.9	16,352	38	65.4%	1,368,543
CAMERON	362	17.4	21,200	59	59.0%	1,798,658

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
FM 1488 & Honea Egypt Rd	MONTGOMERY	75,544	1,036	49.4	32.1%	51,304
TX 6 & Spencer Rd	HARRIS	57,546	822	51.4	40.1%	34,442
N Hardin Blvd & W University Dr	COLLIN	74,619	811	39.1	41.8%	43,396
University Dr & Gee Rd	DENTON	71,991	805	40.2	42.3%	41,526
E SE Loop 323 & Troup Hwy	SMITH	63,194	804	45.8	34.7%	41,296
S Hwy 6 & Westheimer Rd	HARRIS	58,957	743	45.4	37.8%	36,652
Barker Cypress Rd & Spencer Rd	HARRIS	50,935	707	50.0	29.3%	36,034
Cross Timbers Rd & Long Prairie Rd	DENTON	71,489	702	35.3	33.3%	47,652
Davis Blvd & W Southlake Blvd	TARRANT	52,289	686	47.2	29.7%	36,762
Justin Rd & Long Prairie Rd	DENTON	57,654	686	42.8	31.2%	39,652

Notes:

- The methodology used to generate results shown is detailed in Appendix A of the Scorecard
- The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
- Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
- Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
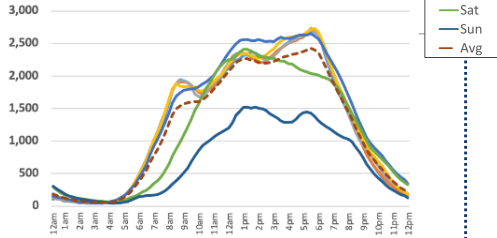- All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

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Utah

Signals Analyzed: **1,572**
Signals Analyzed Rank: **32**
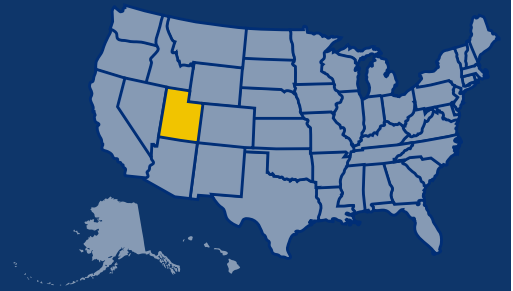
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
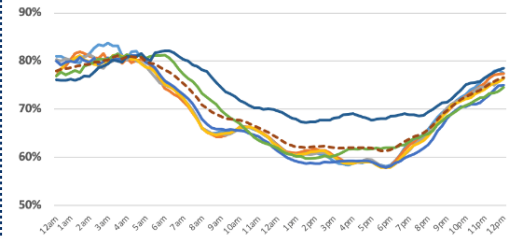
Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
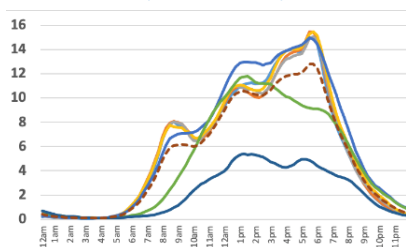
Peak: **Tuesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Tuesday 4:45 – 5:45pm**

Signals by Weekly Average Level of Service:

| A = 38% | B = 45% | C = 15% | D+ = 2% |

Average Daily VOLUME

525

Observations / Signal
US Average: 619

Scaled Crossings (millions): **29**
Scaled Crossings/Signal: **18,600**

Weekly PERFORMANCE

15.5

Seconds Delay / Vehicle
US Average: **16.9**   Rank: **32**

Arrival on Green: **63.9%** (US Avg 62.8%; rank: 31)
Stops/Signal/Day: **6,700** (rank: 17)
Hours of Delay/Signal/Day: **80** (rank: 18)

Typical TRIP

6.1%

% Time Stopped at Signals
US Average: **6.8%**   Rank: **21**

Total Travel Time: **16.9 mins** (US Avg 17.0; rank: 27)
Signals Traversed: **4.0 mins** (US Avg 4.1; rank: 17)
Total Signal Delay: **1.04 mins** (US Avg 1.15; rank: 20)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
SALT LAKE	748	15.9	55,534	74	63.4%	4,604,937
UTAH	265	16.5	22,674	86	63.0%	1,835,084
DAVIS	176	14.7	13,516	77	64.0%	1,188,026
WEBER	171	14.8	15,741	92	65.7%	1,309,840
WASHINGTON	95	14.9	9,061	95	64.1%	786,321
IRON	23	12.3	1,502	65	65.0%	154,335
SUMMIT	19	13.8	1,401	74	62.8%	135,651
CACHE	17	16.7	1,810	106	61.0%	151,850
TOOELE	14	11.1	1,106	79	70.5%	105,598
GRAND	10	16.8	912	91	70.9%	56,986

Top 10 Intersections by Total Delay

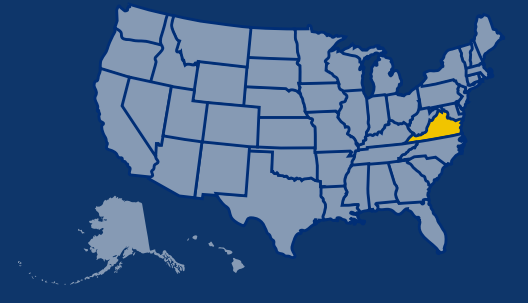| Name	County	ADT	DHD	D/V	AOG (%)	Stops
W 800 N & N State St	UTAH	54,183	609	40.5	36.3%	34,522
N Main St & W Antelope Dr	DAVIS	52,986	598	40.6	38.6%	32,533
Wall Ave & 12th St	WEBER	50,688	596	42.3	34.2%	33,328
State St & 11400 S	SALT LAKE	55,441	547	35.5	38.8%	33,952
E University Pkwy & S State St	UTAH	46,198	532	41.5	28.7%	32,920
W 5600 S & S 1900 W	WEBER	43,753	528	43.4	35.8%	28,105
W 7800 S & Redwood Rd	SALT LAKE	49,621	500	36.3	38.4%	30,589
12th St & Washington Blvd	WEBER	43,242	483	40.2	33.6%	28,701
W Telegraph St & S Green Springs Dr	WASHINGTON	39,807	470	42.5	29.5%	28,044
State St & 9000 S	SALT LAKE	48,149	468	35.0	40.4%	28,706

Notes:

➤ The methodology used to generate results shown is detailed in Appendix A of the Scorecard
➤ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➤ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➤ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
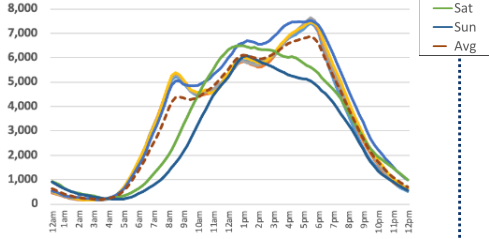➤ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

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Virginia

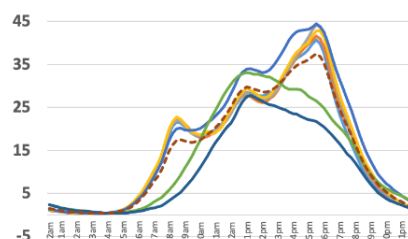Signals Analyzed: **4,489**

Signals Analyzed Rank: **15**

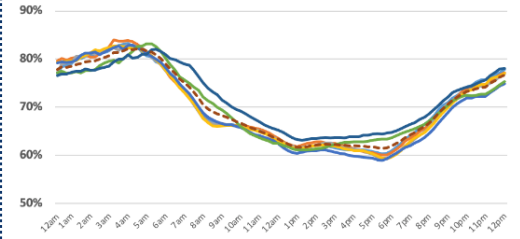## Estimated Crossings/Hour
(in Thousands)

Peak: **Wednesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 4:30 – 5:30pm**

Signals by Weekly Average Level of Service:

A = 34%	B = 43%	C = 20%	D+ = 3%

Average Daily VOLUME

444

Observations / Signal

US Average: 619

Scaled Crossings (millions): **82**
Scaled Crossings/Signal: **18,300**

Weekly PERFORMANCE

15.9

Seconds Delay / Vehicle

US Average: **16.9** Rank: **26**

Arrival on Green: **64.8%** (US Avg 62.8%; rank: 38)
Stops/Signal/Day: **6,400** (rank: 23)
Hours of Delay/Signal/Day: **81** (rank: 16)

Typical TRIP

5.4%

% Time Stopped at Signals

US Average: **6.8%** Rank: **23**

Total Travel Time: **18.8 mins** (US Avg 17.0; rank: 2)
Signals Traversed: **3.8 mins** (US Avg 4.1; rank: 21)
Total Signal Delay: **1.01 mins** (US Avg 1.15; rank: 22)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
FAIRFAX	873	15.6	69,819	80	66.9%	5,328,733
LOUDOUN	274	14.9	22,518	82	61.7%	2,089,660
PRINCE WILLIAM	269	15.9	32,070	119	66.5%	2,436,862
ARLINGTON	257	18.2	13,927	54	61.6%	1,059,383
ALEXANDRIA (CITY)	215	16.1	11,491	53	68.6%	805,252
NEWPORT NEWS (CITY)	190	10.2	10,213	54	79.8%	730,608
RICHMOND (CITY)	183	16.8	5,713	31	63.5%	448,049
NORFOLK (CITY)	175	19.3	19,784	113	62.1%	1,401,171
VIRGINIA BEACH (CITY)	164	18.4	25,283	154	62.9%	1,839,374
ROANOKE (CITY)	141	16.4	9,492	67	63.2%	769,339

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Va Beach Blvd & Independence Blvd	VIRGINIA BEACH (CITY)	84,306	942	40.2	41.7%	49,186
Battlefield Blvd N & Volvo Pkwy	CHESAPEAKE (CITY)	58,260	867	53.6	28.4%	41,739
Warrenton Rd & Cambridge St	STAFFORD	62,007	827	48.0	34.1%	40,892
Bragg Rd & Plank Rd	SPOTSYLVANIA	95,856	813	30.5	57.7%	40,550
Oyster Point Rd & Jefferson Ave	NEWPORT NEWS (CITY)	72,033	781	39.0	32.9%	48,298
Jeff Davis Hwy & W Hundred Rd	CHESTERFIELD	49,906	756	54.5	22.4%	38,708
Plank Rd & Central Park Blvd	SPOTSYLVANIA	81,914	748	32.9	57.0%	35,187
John Mosby Hwy & Loudoun Cty Pkwy	LOUDOUN	55,360	695	45.2	32.7%	37,268
Newtown Rd & E Virginia Beach Blvd	VIRGINIA BEACH (CITY)	48,080	680	50.9	28.0%	34,621
Garrisonville Rd & Mine Rd	STAFFORD	70,130	663	34.0	43.1%	39,884

Notes:

➢ The methodology used to generate results shown is detailed in Appendix A of the Scorecard

➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments

➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings

➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
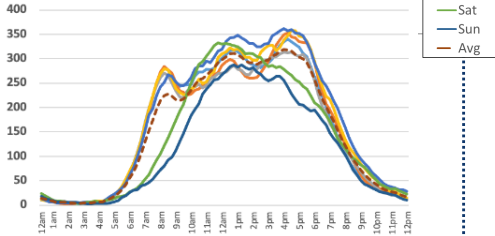
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Vermont

Signals Analyzed: **252**
Signals Analyzed Rank: **51**
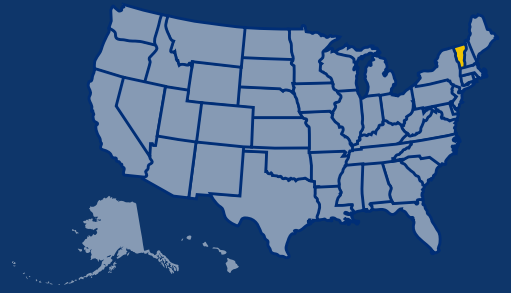
Estimated Crossings/Hour
(in Thousands)

Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg
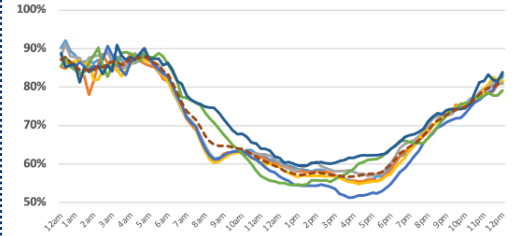
Peak: **Friday 3:00 – 4:00pm**

Total Hours Delay/Hour
(in Thousands)
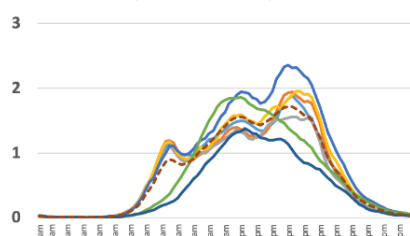
Peak: **Friday 3:00 – 4:00pm**

Arrival on Green (%)/Hour

Peak: **Friday 2:45 – 3:45pm**

Signals by Weekly Average Level of Service:

A = 23%	B = 58%	C = 17%	D+ = 3%

Average Daily VOLUME

541

Observations / Signal
US Average: 619

Scaled Crossings (millions): **4**
Scaled Crossings/Signal: **14,700**

Weekly PERFORMANCE

15.9

Seconds Delay / Vehicle
US Average: 16.9   Rank: 28

Arrival on Green: **61.8% (US Avg 62.8%; rank: 19)**
Stops/Signal/Day: **5,600 (rank: 39)**
Hours of Delay/Signal/Day: **65 (rank: 39)**

Typical TRIP

2.6%

% Time Stopped at Signals
US Average: 6.8%   Rank: 45

Total Travel Time: **16.6 mins (US Avg 17.0; rank: 35)**
Signals Traversed: **1.7 mins (US Avg 4.1; rank: 46)**
Total Signal Delay: **0.44 mins (US Avg 1.15; rank: 46)**

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
CHITTENDEN	153	15.2	10,205	67	63.1%	889,752
RUTLAND	27	16.2	2,164	80	63.6%	174,667
WASHINGTON	21	14.7	1,035	49	63.7%	92,247
WINDSOR	11	16.7	507	46	56.2%	47,883
FRANKLIN	10	18.9	681	68	51.6%	62,893

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Park St & Main St	CHITTENDEN	25,472	440	62.1	18.3%	20,812
Kennedy Dr & Dorset St	CHITTENDEN	22,672	246	39.0	28.6%	16,187
Woodstock Ave & N Main St	RUTLAND	28,415	215	27.3	43.2%	16,146
S Prospect St & Main St	CHITTENDEN	28,937	210	26.1	40.1%	17,342
Main St & W St	RUTLAND	29,678	207	25.1	54.5%	13,501
Fisher Pond Rd	FRANKLIN	22,709	206	32.6	27.4%	16,490
Saint George Rd & Marshall Ave	CHITTENDEN	20,275	192	34.2	33.8%	13,426
Roosevelt Hwy	CHITTENDEN	26,531	179	24.3	48.7%	13,605
College Pkwy & Lime Kiln Rd	CHITTENDEN	31,782	175	19.9	50.8%	15,622
Patchen Rd & Williston Rd	CHITTENDEN	19,896	172	31.2	34.2%	13,098

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
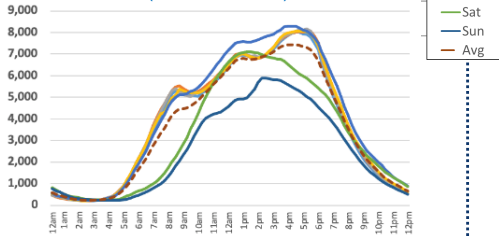➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

Washington

Signals Analyzed: **5,101**

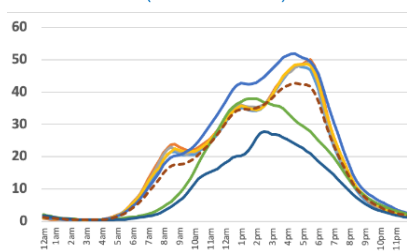Signals Analyzed Rank: **11**
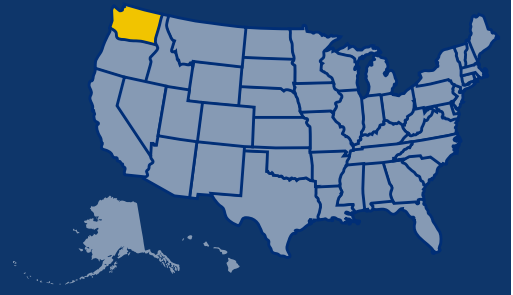
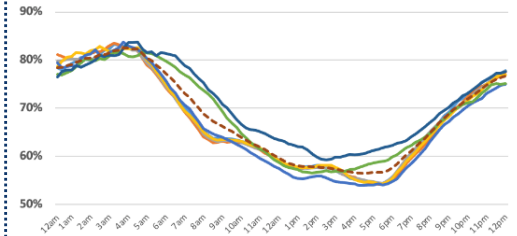## Estimated Crossings/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:15 – 4:15pm**

Signals by Weekly Average Level of Service:

A = 34%	B = 45%	C = 19%	D+ = 3%

Average Daily VOLUME

299

Observations / Signal

US Average: 619

Scaled Crossings (millions): **88**
Scaled Crossings/Signal: **17,200**

Weekly PERFORMANCE

16.6

Seconds Delay / Vehicle

US Average: **16.9**   Rank: **21**

Arrival on Green: **61.4%** (US Avg 62.8%; rank: 16)
Stops/Signal/Day: **6,700** (rank: 16)
Hours of Delay/Signal/Day: **79** (rank: 20)

Typical TRIP

7.3%

% Time Stopped at Signals

US Average: **6.8%**   Rank: **12**

Total Travel Time: **17.1 mins** (US Avg 17.0; rank: 24)
Signals Traversed: **4.5 mins** (US Avg 4.1; rank: 14)
Total Signal Delay: **1.25 mins** (US Avg 1.15; rank: 13)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
KING	2,055	17.4	150,316	73	62.0%	11,826,448
SNOHOMISH	468	17.2	44,721	96	62.3%	3,520,381
PIERCE	449	17.9	47,800	106	59.1%	3,920,637
SPOKANE	413	16.7	39,928	97	58.9%	3,530,587
CLARK	410	15.4	28,402	69	63.4%	2,429,244
THURSTON	151	18.0	13,293	88	58.3%	1,105,301
BENTON	145	13.0	9,247	64	64.0%	922,720
KITSAP	142	15.7	18,888	133	62.3%	1,631,463
WHATCOM	129	17.5	7,946	62	57.0%	702,357
YAKIMA	98	16.4	7,513	77	55.5%	733,177

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
Highland Park Way SW & W Marginal Way SW	KING	50,304	815	58.3	30.8%	34,824
S 320th St & Pacific Hwy S	KING	55,899	703	45.3	25.2%	41,810
S Grady Way & Rainier Ave S	KING	55,831	694	44.8	31.8%	38,055
176th St E & Canyon Rd E	PIERCE	69,603	693	35.8	35.3%	45,009
N Division St & E Francis Ave	SPOKANE	68,398	662	34.8	35.6%	44,017
Bethel Rd SE & SE Lund Ave	KITSAP	60,100	624	37.4	37.3%	37,713
176th St E & E Meridian Ave	PIERCE	57,212	621	39.1	34.2%	37,647
Fairview Ave N	KING	58,973	592	36.1	42.9%	33,697
State Hwy 305 NE & Bond Rd NE	KITSAP	84,832	577	24.5	45.2%	46,491
NW Bucklin Hill Rd & Silverdale Way NW	KITSAP	54,366	572	37.9	35.3%	35,157

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Wisconsin

Signals Analyzed: **3,350**
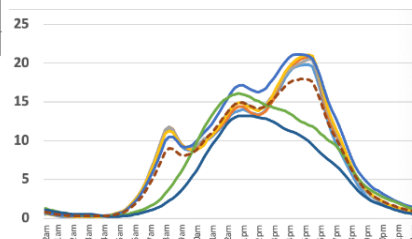Signals Analyzed Rank: **20**
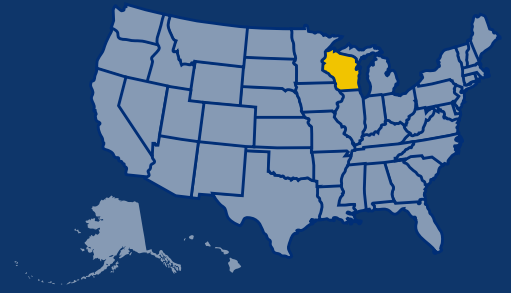
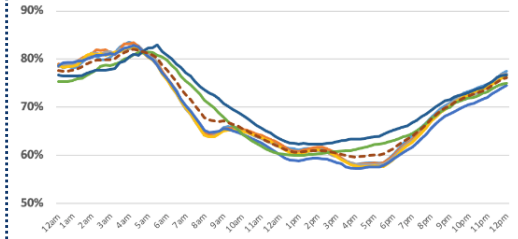## Estimated Crossings/Hour
(in Thousands)
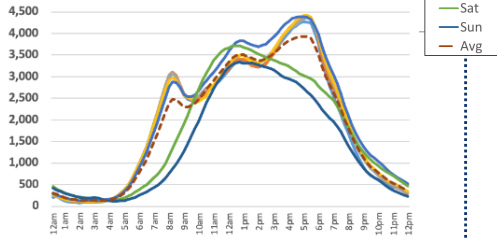
Peak: **Thursday 4:15 – 5:15pm**

Total Hours Delay/Hour
(in Thousands)

Peak: **Friday 3:30 – 4:30pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:00 – 4:00pm**

Signals by Weekly Average Level of Service:

A = 36%	B = 50%	C = 12%	D+ = 1%

Average Daily VOLUME

653

Observations / Signal
US Average: 619

Scaled Crossings (millions): **46**
Scaled Crossings/Signal: **13,600**

Weekly PERFORMANCE

14.1

Seconds Delay / Vehicle
US Average: 16.9   Rank: 45

Arrival on Green: **63.5%** (US Avg 62.8%; rank: 27)
Stops/Signal/Day: **5,000** (rank: 46)
Hours of Delay/Signal/Day: **53** (rank: 47)

Typical TRIP

4.0%

% Time Stopped at Signals
US Average: 6.8%   Rank: 39

Total Travel Time: **16.1 mins** (US Avg 17.0; rank: 43)
Signals Traversed: **2.7 mins** (US Avg 4.1; rank: 38)
Total Signal Delay: **0.64 mins** (US Avg 1.15; rank: 40)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
MILWAUKEE	832	16.2	48,395	58	62.2%	4,078,172
DANE	450	12.8	17,088	38	65.7%	1,649,919
WAUKESHA	297	14.9	20,266	68	63.1%	1,811,411
BROWN	154	13.0	9,038	59	63.2%	925,149
OUTAGAMIE	130	14.4	8,501	65	63.0%	784,993
WINNEBAGO	119	11.9	4,534	38	65.1%	479,436
MARATHON	108	12.9	4,529	42	65.5%	435,776
ROCK	99	15.0	6,194	63	60.2%	592,218
EAU CLAIRE	97	11.8	4,680	48	69.6%	435,669
LA CROSSE	94	12.9	5,795	62	64.2%	579,807

Top 10 Intersections by Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
State Hwy 31 & State Hwy 50	KENOSHA	46,395	555	43.1	30.6%	32,205
Humes Rd & Milton Ave	ROCK	39,408	480	43.8	31.3%	27,089
N Green Bay Rd & Spring St	RACINE	46,803	476	36.6	36.4%	29,779
Green Bay Rd & 52nd St	KENOSHA	48,348	449	33.4	36.5%	30,677
State Hwy 59	WAUKESHA	43,065	440	36.8	29.9%	30,207
N Barker Rd & W Bluemound Rd	WAUKESHA	50,935	434	30.7	39.7%	30,721
Miller Park Way & W National Ave	MILWAUKEE	34,607	421	43.8	29.6%	24,351
W Good Hope Rd & N 76th St	MILWAUKEE	43,150	414	34.5	35.4%	27,864
W Layton Ave & S 76th St	MILWAUKEE	37,970	398	37.7	28.5%	27,163
S Green Bay Rd	RACINE	42,526	395	33.4	32.5%	28,711

Notes:

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➢ The graphs represent rolling hour statewide summaries, advancing in 15 minute increments
➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
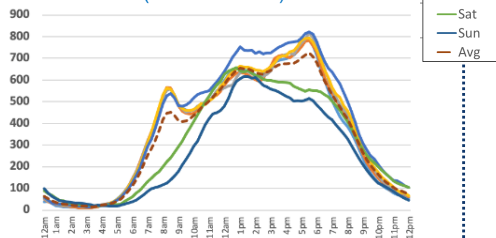➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

West Virginia

Signals Analyzed: **542**
Signals Analyzed Rank: **45**

Estimated Crossings/Hour
(in Thousands)

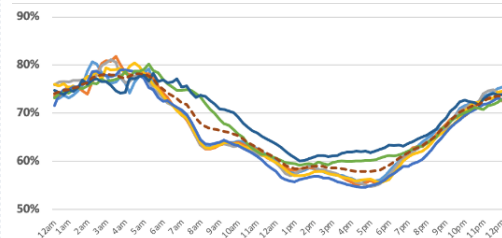Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Friday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
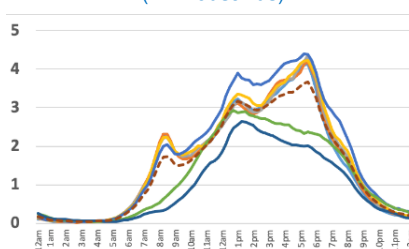
Peak: **Friday 4:15 – 5:15pm**

Arrival on Green (%)/Hour

Peak: **Friday 3:45 – 4:45pm**

Signals by Weekly Average Level of Service:

| A = 27% | B = 53% | C = 18% | D+ = 2% |

Average Daily VOLUME

581

Observations / Signal
US Average: 619

Scaled Crossings (millions): **8**
Scaled Crossings/Signal: **15,500**

Weekly PERFORMANCE

15.4

Seconds Delay / Vehicle
US Average: **16.9** Rank: **33**

Arrival on Green: **61.7%** (US Avg 62.8%; rank: 18)
Stops/Signal/Day: **5,900** (rank: 28)
Hours of Delay/Signal/Day: **66** (rank: 36)

Typical TRIP

2.2%

% Time Stopped at Signals
US Average: **6.8%** Rank: **48**

Total Travel Time: **18.0 mins** (US Avg 17.0; rank: 9)
Signals Traversed: **1.6 mins** (US Avg 4.1; rank: 48)
Total Signal Delay: **0.40 mins** (US Avg 1.15; rank: 47)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
CABELL	113	14.9	6,144	54	63.9%	535,636
MONONGALIA	65	20.1	7,059	109	56.1%	553,524
KANAWHA	62	13.7	3,444	56	64.1%	324,439
BERKELEY	55	16.6	4,298	78	60.5%	368,454
HARRISON	50	14.4	2,720	54	61.4%	263,456
WOOD	30	15.6	2,715	91	65.2%	218,116
OHIO	24	17.7	1,371	57	60.2%	110,960
MERCER	20	13.0	1,403	70	61.9%	148,592
JEFFERSON	14	9.3	732	52	66.4%	94,815
RALEIGH	12	14.8	1,225	102	63.0%	110,037

Top 10 Intersections by Total Delay

| Name	County	ADT	DHD	D/V	AOG (%)	Stops
University Ave & Van Voorhis Rd	MONONGALIA	42,100	502	43.0	36.6%	26,701
Apple Harvest Dr & Winchester Ave	BERKELEY	39,798	365	33.1	47.8%	20,777
Blue Horizon Dr & Chaplin Rd	MONONGALIA	40,616	365	32.3	48.0%	21,123
Burroughs St & Van Voorhis Rd	MONONGALIA	24,081	333	49.8	29.3%	17,027
Apple Harvest Dr	BERKELEY	39,885	324	29.3	49.7%	20,055
Murdoch Ave & Lakeview Dr	WOOD	45,828	323	25.3	56.0%	20,185
Emily Dr & West Main St	HARRISON	32,548	307	34.0	34.8%	21,215
East Beckley Bypass & R C Byrd Dr	RALEIGH	32,779	280	30.8	34.3%	21,524
5th St & Midland Trail	CABELL	42,115	266	22.8	49.4%	21,301
Walnut St & University Ave	MONONGALIA	20,381	248	43.7	32.3%	13,799

Notes:

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➢ Acronyms in the lower tables: 'D/V' – Delay per Vehicle in Seconds; 'DHD' – Daily Hours of Delay; AOG(%) – Arrival on Green (%); ADT – Estimated Daily Scaled Crossings
➢ Counties shown in lower left table must have 10 or more signals to be included; Signalized Intersection names come from OSM and may be incomplete
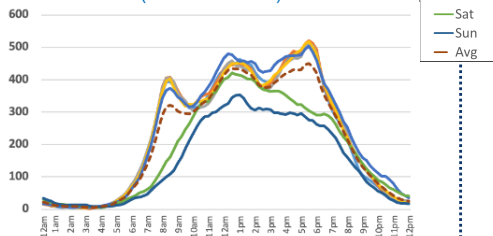➢ All Signals analyzed can be viewed at https://inrix.com/signals-scorecard/map

INRIX U.S. Signals Scorecard

INRIX

Wyoming

Signals Analyzed: **355**
Signals Analyzed Rank: **47**
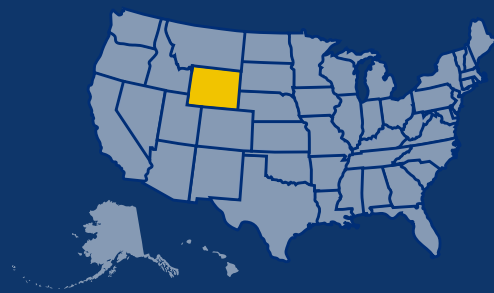
Estimated Crossings/Hour
(in Thousands)
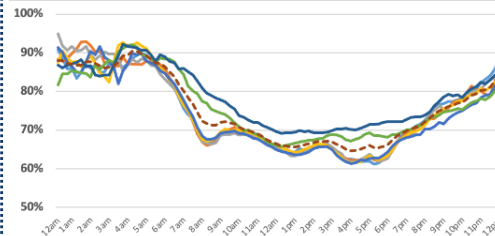
Legend: Mon, Tues, Wed, Thu, Fri, Sat, Sun, Avg

Peak: **Tuesday 4:30 – 5:30pm**

Total Hours Delay/Hour
(in Thousands)
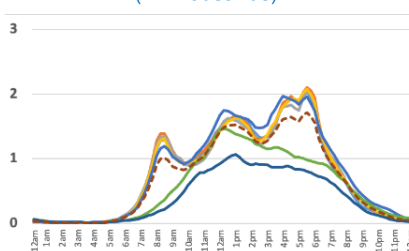
Peak: **Tuesday 4:30 – 5:30pm**

Arrival on Green (%)/Hour

Peak: **Monday 4:15 – 5:15pm**

Signals by Weekly Average Level of Service:

A = 48%	B = 46%	C = 6%

Average Daily VOLUME

530

Observations / Signal
US Average: 619

Scaled Crossings (millions): **5**
Scaled Crossings/Signal: **14,600**

Weekly PERFORMANCE

11.5

Seconds Delay / Vehicle
US Average: 16.9   Rank: 51

Arrival on Green: **68.0%** (US Avg 62.8%; rank: 50)
Stops/Signal/Day: **4,700** (rank: 49)
Hours of Delay/Signal/Day: **47** (rank: 50)

Typical TRIP

2.5%

% Time Stopped at Signals
US Average: 6.8%   Rank: 46

Total Travel Time: **17.8 mins** (US Avg 17.0; rank: 12)
Signals Traversed: **2.4 mins** (US Avg 4.1; rank: 42)
Total Signal Delay: **0.45 mins** (US Avg 1.15; rank: 45)

Daily Averages of Counties Listed by Signal Count

County	Signals	D/V	Total DHD	DHD/Signal	AOG (%)	Total Stops
LARAMIE	120	11.0	4,697	39	69.6%	466,983
NATRONA	73	13.1	4,407	60	64.0%	437,966
CAMPBELL	42	10.5	2,240	53	70.0%	229,909
ALBANY	41	9.7	1,353	33	71.3%	143,427
FREMONT	20	9.0	681	34	75.8%	65,506
PARK	13	12.1	553	43	66.3%	55,418
TETON	12	16.5	1,337	111	61.5%	112,234

Top 10 Intersections by Total Delay

Name	County	ADT	DHD	D/V	AOG (%)	Stops
SE Wyoming Blvd & E 2nd St	NATRONA	35,262	292	29.8	35.3%	22,831
S Douglas Hwy & E Boxelder Rd	CAMPBELL	37,812	276	26.3	40.4%	22,548
Converse Ave & Dell Range Blvd	LARAMIE	37,747	274	26.1	39.6%	22,797
W Pearl Ave & W Broadway Ave	TETON	26,975	249	33.3	32.7%	18,165
County Rd 308 & SW Wyoming Blvd	NATRONA	31,018	247	28.6	30.6%	21,517
N Poplar St & W 1st St	NATRONA	27,886	233	30.1	36.3%	17,774
W Broadway Ave & WY 22	TETON	38,720	208	19.3	47.5%	20,345
N Cache St & W Broadway Ave	TETON	18,849	193	36.8	36.1%	12,043
Dell Range Blvd & N College Dr	LARAMIE	30,336	192	22.8	44.0%	16,985
N College Dr & E Pershing Blvd	LARAMIE	30,705	180	21.1	47.5%	16,133

Notes:

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INRIX U.S. Signals Scorecard

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