

# SPEED LIMIT REVIEW AND FINDINGS OF ARKANSAS HIGHWAYS



## FINAL REPORT

Prepared by The Arkansas Department of Transportation  
in accordance with Act 784 of the 92nd General Assembly Regular Session

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# **Executive Summary**

In compliance with Act 784 of the 92nd General Assembly of the State of Arkansas, the Arkansas Department of Transportation (Department) conducted an engineering and traffic investigation to determine the feasibility of increasing the speed limits on State highways. The investigation reviewed four groups of highways, and found the following speed limits feasible:

- Rural Interstates – 75 miles per hour (mph);
- Urban Interstates – 65 mph;
- Rural Multi-Lane Highways – 65 mph, unless an engineering study determines the need for a lower speed limit; and
- Other Rural Highways – 55 mph, with the option to increase the speed limit to 60 mph on individual highways where an engineering study determines that a higher speed limit is warranted.

# **Introduction**

Since the repeal of the National Maximum Speed Law in 1995, the authority to establish speed limits on state highway systems has rested with the states. During the 2019 Regular Session of the Arkansas State Legislature, the 92<sup>nd</sup> General Assembly passed Act 784 to increase the speed limits on controlled-access highways to 75 mph upon an engineering and traffic investigation. Act 784 also increased the maximum allowable speed limit on all facilities other than controlled-access highways to 65 mph.

In response to this legislation, the Department conducted an engineering and traffic investigation, and reviewed pertinent data concerning vehicular speeds and speed limits. The investigation considered crash histories, speed trends, highway design, and other states' practices for the following four groups of highways:

- Rural Freeways;
- Urban Freeways;
- Rural Multi-Lane Highways; and
- Other Rural Highways.

Currently in Arkansas, rural freeways are posted at 70 mph, while urban freeways are typically posted at 60 mph. Rural multi-lane highways are posted from 55 to 65 mph, and all other rural highways are posted at 55 mph.

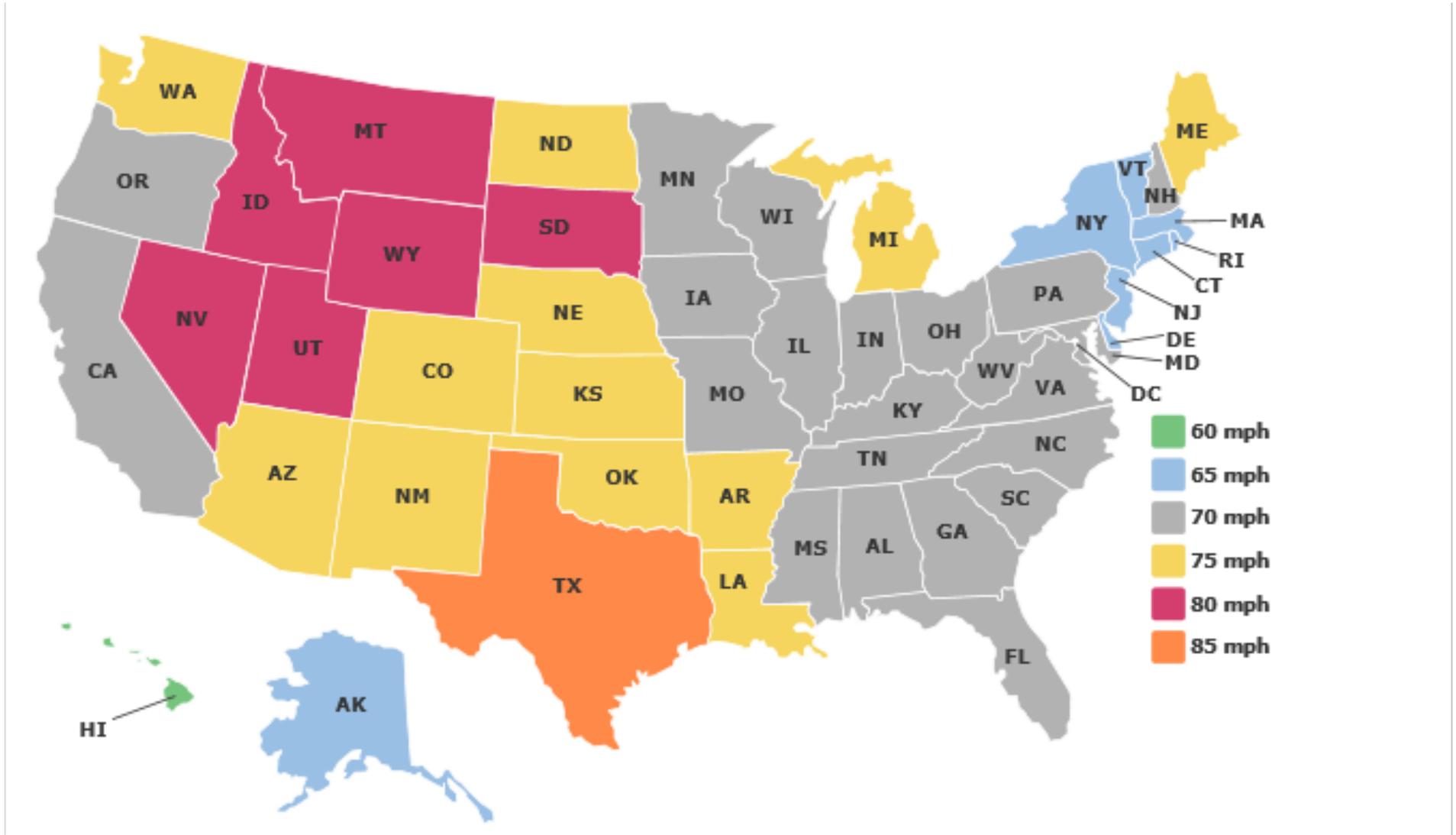
The purpose of this study is to provide relevant information to support informed decisions regarding the speed limits on Arkansas highways.

## **Current National and Regional Speed Limits**

Figure 1 shows the maximum speed limits on rural Interstates nationwide. Table 1 lists the current maximum speed limits allowed by law in each state. The data was compiled and published by the Insurance Institute for Highway Safety in August of 2017. Figure 2 shows the results of a poll of Arkansas' surrounding states regarding the actual posted speed limits on the four types of facilities considered in this study.

# Figure 1

## Maximum Speed Limits Allowed by Law on Rural Interstates



Source: Insurance Institute for Highway Safety, August 2017

## State Speed Limits by Facility Type

**TABLE 1**

Source: Insurance Institute for Highway Safety, August 2017

State	Rural Interstates		Urban Interstates		Other Limited Access Roads		Other Roads	
	Non-Trucks	Trucks	Non-Trucks	Trucks	Non-Trucks	Trucks	Non-Trucks	Trucks
	MPH							
Alabama	70		65		65		65	
Alaska	65		55		65		55	
Arizona	75		65		65		65	
Arkansas	75 <sup>(1)</sup>		75 <sup>(1)</sup>		75 <sup>(1)</sup>		65	
California	70	55	65	55	70	55	65	55
Colorado	75		65		65		65	
Connecticut	65		55		65		55	
Delaware	65		55		65		55	
District of Columbia	n/a		55		n/a		25	
Florida	70		65		70		65	
Georgia	70		70		65		65	
Hawaii	60 <sup>(2)</sup>		60 <sup>(2)</sup>		60 <sup>(2)</sup>		60 <sup>(2)</sup>	
Idaho	75 <sup>(3)</sup>	70	75 <sup>(3)</sup>	65	70		70	
Illinois	70 <sup>(4)</sup>		55		65		55	
Indiana	70	65	55		60		55	
Iowa	70		55		70		65	
Kansas	75		75		75		65	
Kentucky	65 <sup>(5)</sup>		65		65		55	
Louisiana	75		70		70		65	
Maine	75		75		75		60	
Maryland	70		70		70		55	
Massachusetts	65		65		65		55	
Michigan	70 <sup>(6)</sup>	65	70		70		55	
Minnesota	70		65		65		60	
Mississippi	70		70		70		65	
Missouri	70		60		70		65	
Montana	80	65	65		Daytime 79 & Nighttime 65		Daytime 79 & Nighttime 66	
Nebraska	75		65		65		60	
Nevada	80		65		70		70	
New Hampshire	65 <sup>(7)</sup>		65		55		55	
New Jersey	65		55		65		55	
New Mexico	75		75		65		55	
New York	65		65		65		55	
North Carolina	70		70		70		55	
North Dakota	75		75		70		65	
Ohio	70		65		70		55	
Oklahoma	75 <sup>(8)</sup>		70		70		70	
Oregon	65 <sup>(9)</sup>	55 <sup>(9)</sup>	55		65		65	
Pennsylvania	70		70		70		55	

## State Speed Limits by Facility Type

### TABLE 1 – CONTINUED

Source: Insurance Institute for Highway Safety, August 2017

State	Rural Interstates		Urban Interstates		Other Limited Access Roads		Other Roads	
	Non-Trucks	Trucks	Non-Trucks	Trucks	Non-Trucks	Trucks	Non-Trucks	Trucks
	MPH							
Rhode Island	65		55		55		55	
South Carolina	70		70		60		55	
South Dakota	80		80 <sup>(10)</sup>		70		70	
Tennessee	70		70		70		65	
Texas	75 <sup>(11)</sup>		75		75		75	
Utah	75 <sup>(12)</sup>		65		75		65	
Vermont	65		55		50		50	
Virgin	70		70		65		55	
Washington	70 <sup>(13)</sup>	60	60		60		60	
West Virginia	70		55		65		55	
Wisconsin	70		70		70		55	
Wyoming	75 <sup>(14)</sup>		75 <sup>(14)</sup>		70		70	

<sup>1</sup> In Arkansas, the speed limit may be raised on a controlled-access highway to 75 mph if based on traffic and engineering studies.

<sup>2</sup> In Hawaii, the maximum speed limit is established by County Ordinance or by the Director of Transportation.

<sup>3</sup> In Idaho the speed limit may be increased to 80 mph for non-truck vehicles on specific segments of highway on the basis of an engineering and traffic investigation.

<sup>4</sup> The Illinois law allows Cook, DuPage, Kane, Lake, Madison, McHenry, St. Clair and Will Counties to opt-out by adopting an ordinance that sets a lower maximum speed limit, empowering counties to make adjustments based on their own local needs. These counties have a maximum large truck speed limit of 60 mph outside of urban districts and 55 mph inside urban districts.

<sup>5</sup> In Kentucky, the speed limit may be increased to 70 mph on specific segments of highway on the basis of an engineering and traffic investigation.

<sup>6</sup> In Michigan, the speed limit for non-trucks may increase to 75 mph on specific segments of highways on the basis of an engineering and traffic investigation.

<sup>7</sup> 2013 New Hampshire House Bill 146 raised the speed limit from 65 to 70 mph on the portion of Interstate 93 from mile marker 45 to the Vermont border.

<sup>8</sup> In Oklahoma, the speed limit may be increased by the Oklahoma Department of Transportation beyond 75 mph on any highway or part of a highway based on an engineering and traffic investigation, effective November 1, 2016.

<sup>9</sup> In Oregon, the speed limit for non-trucks may increase to 70 mph and the speed limit for trucks may increase to 65 mph on specific segments of highways on the basis of an engineering and traffic investigation.

<sup>10</sup> The South Dakota Transportation Commission may establish a maximum speed limit of less than 80 mph for trucks upon any highway or portion of highway under the jurisdiction of the Department of Transportation, and any portion of highway under the jurisdiction of a state or federal agency.

<sup>11</sup> Sections of Interstate 10 and Interstate 20 in West Texas and sections of Highway 45 in Travis County have a speed limit for non-trucks of 80 mph. Speed limits of up to 85 mph may be established if the highway is originally constructed and designed to accommodate the higher speed and it has been determined by an engineering study to be reasonable and safe.

<sup>12</sup> In Utah, the speed limit may be increased beyond 75 mph for non-trucks on any freeway or limited access highway on the basis of an engineering and traffic investigation. The highest posted limit in Utah is currently 80 mph.

<sup>13</sup> In Washington State, maximum speed limits on highways or portions of highways may be posted as high as 75 mph for non-trucks if based on a traffic and engineering study, effective August 2015.

<sup>14</sup> In Wyoming, the speed limit may be increased to 80 mph for non-trucks on specific segments of highway on the basis of an engineering and traffic investigation.

# SURROUNDING STATES

Figure 2

## Missouri

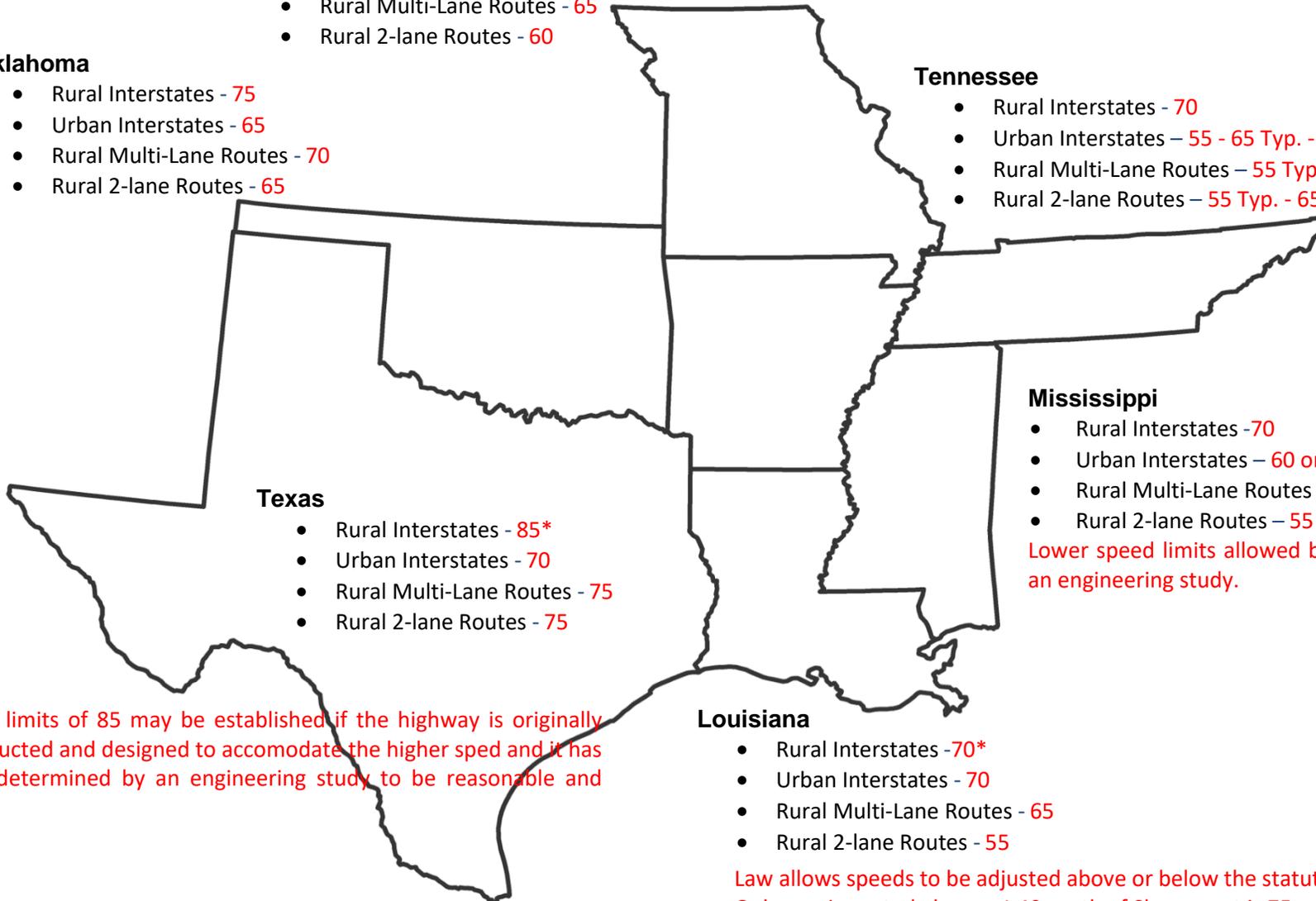
- Rural Interstates - 70
- Urban Interstates - 60
- Rural Multi-Lane Routes - 65
- Rural 2-lane Routes - 60

## Oklahoma

- Rural Interstates - 75
- Urban Interstates - 65
- Rural Multi-Lane Routes - 70
- Rural 2-lane Routes - 65

## Tennessee

- Rural Interstates - 70
- Urban Interstates – 55 - 65 Typ. - 70 Max.
- Rural Multi-Lane Routes – 55 Typ. - 65 Max.
- Rural 2-lane Routes – 55 Typ. - 65 Max.



## Texas

- Rural Interstates - 85\*
- Urban Interstates - 70
- Rural Multi-Lane Routes - 75
- Rural 2-lane Routes - 75

## Mississippi

- Rural Interstates - 70
- Urban Interstates – 60 or lower\*
- Rural Multi-Lane Routes - 70
- Rural 2-lane Routes – 55

Lower speed limits allowed based on an engineering study.

## Louisiana

- Rural Interstates - 70\*
- Urban Interstates - 70
- Rural Multi-Lane Routes - 65
- Rural 2-lane Routes - 55

Law allows speeds to be adjusted above or below the statutory speed. Only one is posted above – I-49 north of Shreveport is 75 mph.

Speed limits of 85 may be established if the highway is originally constructed and designed to accommodate the higher speed and it has been determined by an engineering study to be reasonable and safe.

## **Speed Limits in Arkansas**

The Arkansas Highway Commission is authorized by statutes to set maximum and minimum speed limits on all highways on the State Highway System.

Historically, speed limits have been established by Commission Minute Order based upon a traffic and engineering study by the Department. Some of the factors considered in these studies include:

1. Road surface characteristics, shoulder condition, grade, alignment and sight distance;
2. The 85<sup>th</sup> percentile speed;
3. Roadside development and culture;
4. Parking practices and pedestrian activity; and
5. Reported crash experience for a recent 12-month period.

Prior to 1959, the maximum speed limit on the State Highway System was 60 mph. In 1959, due to the completion of portions of the Interstate Highway System, the Commission set a maximum of 70 mph and a minimum of 45 mph on fully controlled access highways and a maximum of 70 mph on partially controlled access highways.

In 1970, the Commission raised the limits to 75 mph maximum and 50 mph minimum on fully controlled access highways and a maximum of 75 mph on partially controlled access highways. In 1971, the Commission set the maximum speed limit on all other types of highways at 60 mph with some exceptions allowing a maximum of 65 mph.

In 1974, due to the "Emergency Highway Energy Conservation Act," Congress imposed the National Maximum Speed Limit on all highways at 55 mph by requiring the limit as a condition of each state receiving federal highway funds. Accordingly, the Commission set the maximum speed limit on all highways at 55 mph.

In 1987, Congress permitted states to increase speed limits to 65 mph on rural sections of the Interstate System. The Commission raised the speed limits to 65 mph maximum and 45 mph minimum on rural sections of the Interstate.

In 1988, Congress allowed up to 20 states to increase speed limits on certain rural, fully controlled access highways that were built to Interstate standards. The Commission acted to set a maximum of 65 mph on the rural portion of U.S. Highway 65 (now Interstate 530) from Interstate 30 to Pine Bluff and the rural portion of U.S. Highway 67 from Interstate 40 to Highway 224 south of Newport. Subsequent portions of U.S. Highway 67 and U.S. Highway 63 (now Interstate 555) were opened with speed limits of 65 mph maximum and 45 mph minimum.

In 1995, Congress lifted all federal speed limit controls by enacting the National Highway Designation Act, fully delegating speed limit authority back to the states.

In 1996, the Commission set a maximum of 70 mph for passenger vehicles and 65 mph for trucks (gross vehicle weight greater than 20,000 pounds) on rural freeways, a maximum of 60 mph on suburban freeways, a maximum of 55 mph on urban freeways, and a maximum of 60 mph on rural expressways with high type partial control of access.

In 1997, the Commission authorized an increase on rural expressways where recommended by a route specific engineering study. Some rural expressways were subsequently increased to 65 mph.

In 1998, the Commission set a maximum of 65 mph on suburban freeways and a maximum of 60 mph on urban freeways.

In 2012, the Commission authorized an increase from 55 mph to 60 mph on rural, undivided, four and five lane highways where warranted.

In 2015, the Commission set a maximum of 70 mph for all vehicles on rural freeways and eliminated the heavy trucks 65 mph maximum.

In 2017, the Legislature, through Act 1097, set the maximum allowable speed on controlled-access highways at 75 mph and the maximum allowable speed on all other facilities at 65 mph, contingent upon an engineering and traffic investigation.

In 2019, the Legislature set the maximum speed of 75 mph for passenger vehicles and 70 mph for trucks on controlled-access highways outside an urban area, and a maximum of 65 mph in an urban area.

A list of Commission Minute Orders concerning speed limits in Arkansas can be found in the Appendix.

## **Geometric Design Considerations**

As defined in the 2011 American Association of State Highway and Transportation Officials Policy on the Geometric Design of Highways and Streets, design speed is a selected speed used to determine the various geometric design features of the roadway. Operating speed is the speed at which drivers are observed operating their vehicles during free-flow conditions. The 85<sup>th</sup> percentile of the distribution of observed speeds is the most frequently used measure of the operating speed associated with a particular location or geometric feature. The 85<sup>th</sup> percentile speed is the speed at or below which 85 percent of motorists are driving, and the Manual on Uniform Traffic Control Devices (MUTCD) states that the posted speed limit should be within 5 mph of the 85<sup>th</sup> percentile speed.

The design speed sets minimum values to be used in the geometric design of the roadway. Many times the horizontal and vertical alignments have design values that exceed the minimum values specified by the design speed. As a result, the design speed of a highway is likely to underestimate the maximum safe speed along most of its length. In fact, there are many instances along the existing roadway system where the posted speed exceeds the design speed; these situations are routinely handled with warning signs and advisory speed signs where appropriate.

The Federal Highway Administration (FHWA) clarified their position on the relationship between design speed and posted speed in an October 7, 2015, memo titled "Relationship between Design Speed and Posted Speed." This memo stated that "Selection of a posted speed is an operational decision for which the owner and operator of the facility is responsible. Anticipated operating and posted speeds should be considered in the selection of the design speed, but there is no regulation establishing a more direct relationship. If a state legislature or highway agency establishes a speed limit greater than a roadway's inferred design speed, FHWA recommends that a safety analysis be performed to determine the need for appropriate warning or informational signs such as advisory speeds on curves or other mitigation measures prior to posting the speed limit." The Department's current signing policies and guidelines call for the placement of warning signs and advisory speeds in accordance with guidelines from the MUTCD on measuring horizontal curvature and available stopping sight distances for vertical curvature.

National Cooperative Highway Research Program Report 504, Design Speed, Operating Speed, and Posted Speed Practices, concluded that “while a relationship between operating speed and posted speed limit can be defined, a relationship of design speed to either operating speed or posted speed cannot be defined with the same level of confidence. The research also found that design speed appears to have minimal impact on operating speeds unless a tight horizontal radius or a sharp vertical curve is present.”

## **Crash / Safety Considerations**

The Department has calculated fatal crash rates and fatality rates for the categories of highways under study. Crash trends were analyzed from 1994 to 2018.

Fatal crash rates and fatality rates are calculated based on the number of fatal crashes and fatalities on a system as well as the total amount of traffic (vehicle miles traveled) on that system.

Facts on fatal crashes as related to changes in speed limits that have been found in this analysis are as follows:

- Table 2 compares crash data on Arkansas’ rural Interstates before and after speed limit changes. After the speed limit was increased in 1996, fatality rates increased 9.4 percent;
- Figure 3 shows that the number of fatal crashes peaked during the year 2000 on rural Interstates while speed limits were higher. It also shows that an upward trend in the fatal crashes in 2015 continued when the truck specific speed limit of 65 mph was removed. This data is compared with the annual vehicle miles traveled;
- Figure 4 shows that the fatality rate as well as the fatal crash rate for all Interstates peaked in the year 2000, four years after the speed limit was increased; and,
- Figure 5 shows that the fatal crash rate on rural Interstates peaked in 2005 and the fatality rate peaked in 1998 after the speed limits were increased in 1996.

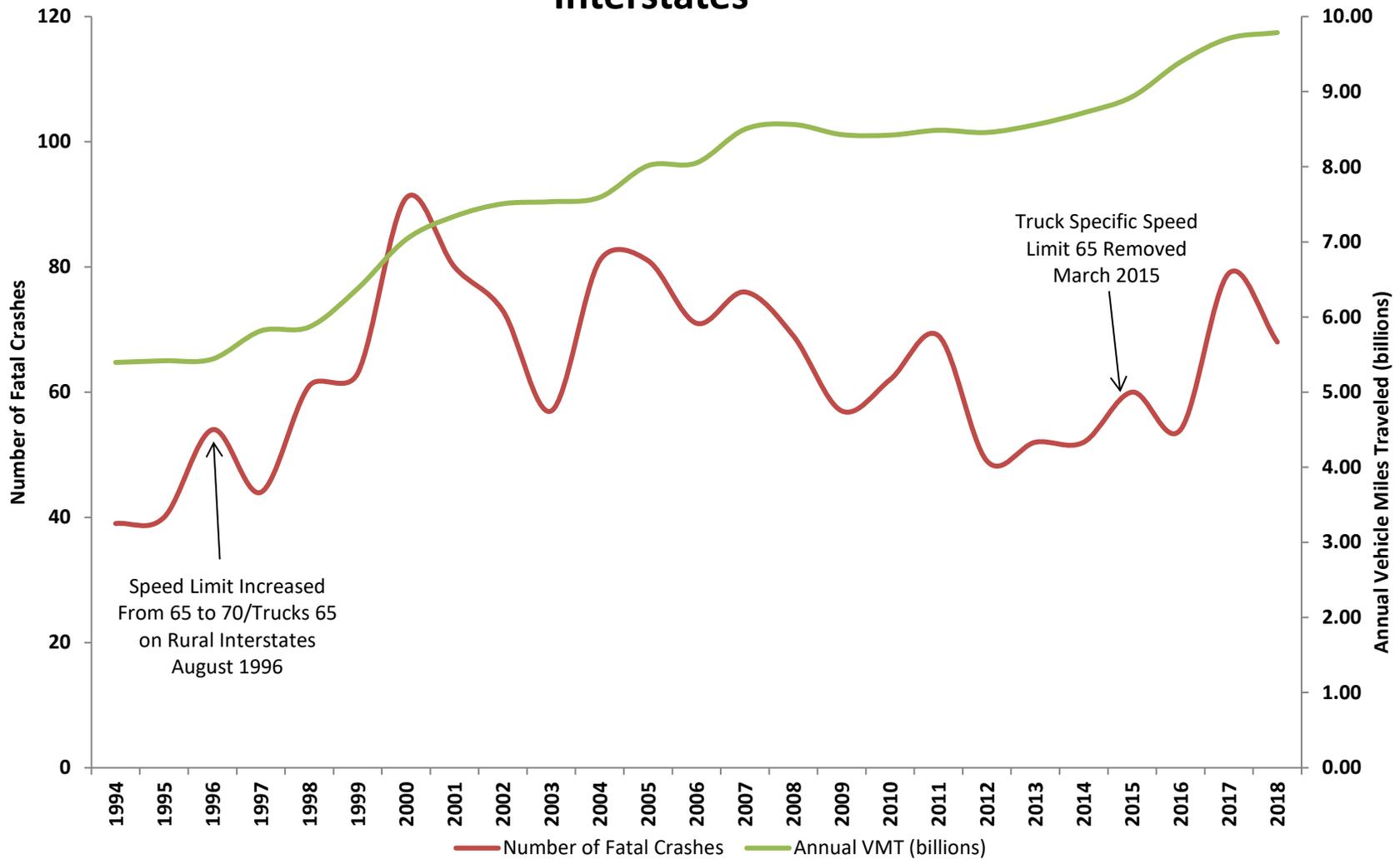
**Table 2**  
**Crash Data on Arkansas' Rural Interstate System**  
**Before and After Speed Limit Changes**

<b>Year</b>	<b>Fatal Crashes</b>	<b>Fatalities</b>	<b>Fatal Crash Rate(1)</b>	<b>Fatality Rate(1)</b>	<b>Change Of Fatality Rates (%)</b>
1995	40	46	0.74	0.85	
1996	<b>Speed Limit increased from 65mph to 70mph on Rural Interstates</b>				
1997	44	54	0.76	0.93	9.41

(1) Per 100 Million Vehicle Miles Traveled

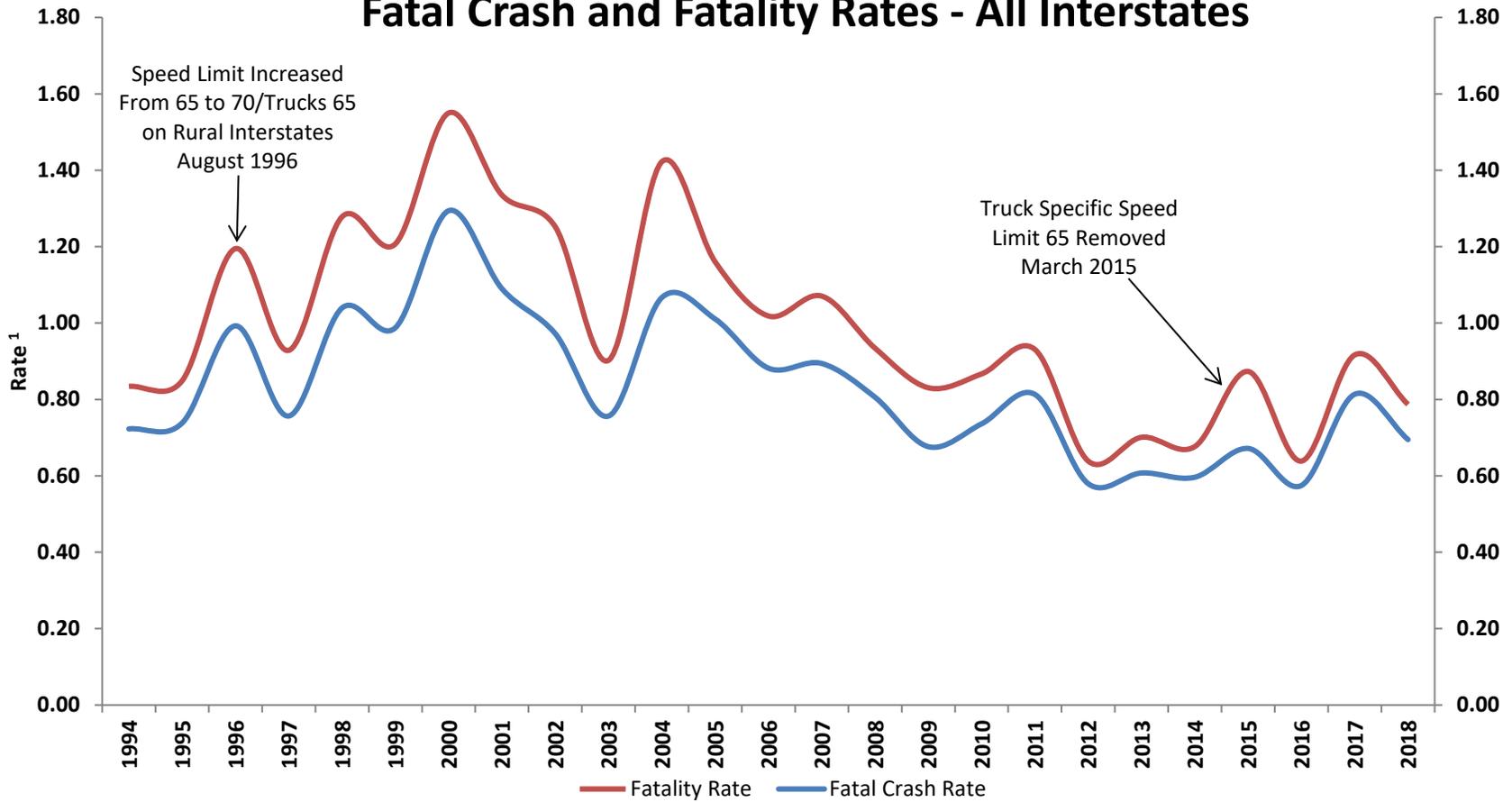
### Figure 3

## Fatal Crashes versus Annual Vehicle Miles Traveled - All Interstates



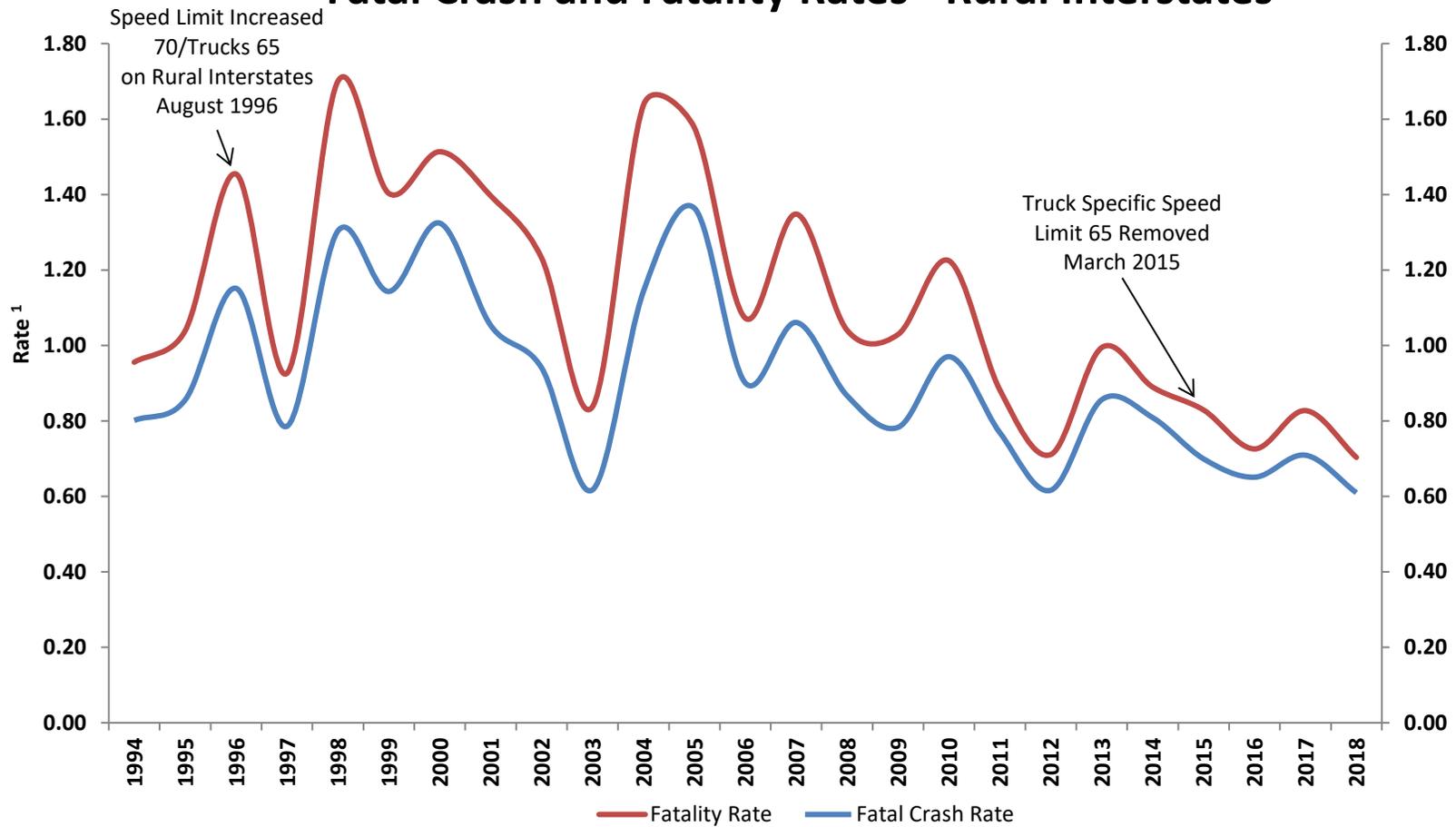
**Figure 4**

**Fatal Crash and Fatality Rates - All Interstates**



<sup>1</sup> Fatal Crashes and Fatalities per 100 million vehicle miles traveled

## Figure 5 Fatal Crash and Fatality Rates - Rural Interstates



<sup>1</sup> Fatal Crashes and Fatalities per 100 million vehicle miles traveled

While speed obviously has a significant impact on the fatal and serious injury crash rates, these figures show a declining trend for fatal and serious injury crash rates since 2000, even given the steady increase in the vehicle miles traveled over this period. It could be argued that technology has played a more significant role in the fluctuation of the rates than the posted speed limit. For example, continued improvements in vehicle safety design, airbags, better tires, and the more recent development of collision avoidance systems, have contributed to the declines, whereas the significant rise in the use of smartphones and texting has contributed to the increases.

## Literature Review

The Department also reviewed other studies that have been conducted concerning the effects of speed and speed limits on crash occurrences. A bibliography citing the reference materials can be found in the Appendix. Some notable findings are below.

- A 2018 letter from the National Highway Traffic Safety Administration (NHTSA) (see Appendix) stated that “Speed was also identified as a contributing factor for fatalities and injuries in Arkansas as speeding related fatalities rose 27 percent from 92 in FY 2015 to 117 in FY 2016. I encourage you to look for new and innovative strategies to deploy more speed enforcement events across the State...”
- A 2016 study by the Insurance Institute for Highway Safety (IIHS) indicates that there is a definite trend of increased fatality risk when speed limits are raised. According to this study, a 5 mph increase in the maximum state speed limit was associated with an 8 percent increase in fatality rates on Interstates and freeways and a 4 percent increase on other roads. This increase in risk has been so great that it has now largely offset the beneficial effects of some other traffic safety strategies. State policy makers should keep this trade-off in mind when considering proposals to raise speed limits. [1]
- In 2015, the Kansas Department of Transportation conducted a simple analysis on all roadways with an increase in speed limit from 70 to 75 mph on July 1, 2011. This analysis compared 3.5 years of crash data before and after the increase in speed limits. It showed that all injury and fatal crashes increased on those roadways; whereas, statewide analysis of all routes showed reduction in all severity of crashes for the same time frame. [2]
- The Journal of Accident Analysis and Prevention reports that the risk of driver fatality in a crash is approximately proportional to the fourth power of the change in speed. [3] A Transportation Research Board publication in 2009 extends this relationship to the non-fatal injuries. [4]
- A 2009 study analyzed the long-term effects of the National Highway Designation Act. This study, published by the American Journal of Public Health, found that from 1995 to 2005, there was a 3.2 percent increase in fatalities attributable to higher speed limits on all road types, with the highest increase of 9.1 percent occurring on rural Interstates. Researchers estimated that 12,545 deaths were due to increases in speed limits across the U.S. [5]

- The NHTSA reported in 2009 that about 55 percent of all speed-related crashes are due to “exceeding speed limits” as compared to the 45 percent that were due to “driving too fast for conditions.” Speed-related crashes that were due to “driving too fast for conditions” were more likely to have occurred on roads with higher speed limits (50+ mph) as compared to other crashes. [6]
- The Transportation Research Board reported in 2006 that 3 percent increases in total crash rates are associated with a speed limit increase from 55 to 65 mph on an average high-speed roadway section. Also a significant increase in the probability of fatalities and serious injuries is associated with higher speed limits. For this particular 10 mph speed limit change, a 24 percent increase in the fatal injury probability would be expected. [7]
- A 2006 study reported by Texas Transportation Institute indicates that an increase in the speed limit by 10 mph was found to be associated with a change in fatal injury count between 13 and 28 percent. [8]
- An older study by IIHS in 1999 also found that fatalities increased, first on rural Interstates with the law's partial repeal and later on all Interstates after the full repeal. [9]

Information concerning speed limit changes has been gathered for individual states. Table 3 shows the correlation between speed limit changes and fatalities for each state.

**Table 3**  
**Comparison of Crash Data**  
**Before and After Speed Limit Increases**

State	2013 Fatalities	2015 Fatalities	Percent Change
Idaho	214	216	+0.9%
Wyoming	87	145	+66.7%
Utah	220	276	+25.5%
Georgia	1,180	1,430	+21.2%
Texas	3,023	3,408	+12.7%
<b>Sub-Total</b>	<b>4,724</b>	<b>5,475</b>	<b>+15.9%</b>
Kansas	431	405	-6.0%
<b>Totals</b>	<b>5,155</b>	<b>5,880</b>	<b>+14.1%</b>

As shown in Table 3, before and after crashes were reviewed for these states. Five of the six states had an average increase in number of fatalities of 15.9 percent. One state showed a decrease in the number of fatalities of 6.0 percent. The Arkansas Strategic Highway Safety Plan (SHSP) recognizes the dangers of speeding and aggressive driving as one of its Primary Emphasis Areas, and addresses the issue of speed related fatalities and aggressive driving. The SHSP recommends the implementation of several strategies to address this problem. [10]

Some of these strategies include:

- Increase usage of dynamic warning signs to remind drivers of their travel speed when entering urban areas or other high risk locations;
- Add information into driver training manuals about the dangers of aggressive drivers;
- Involve parents in driver education;
- Utilize social media to share information about the dangers of aggressive driving;
- Develop media campaigns to increase public awareness about the dangers of speeding and aggressive driving;
- Report statistics regarding fatalities on dynamic message signs;
- Encourage community based enforcement by creating a traffic complaint hot line;
- Develop high-visibility enforcement outreach programs; and
- Develop “TACT” campaign, “Ticketing Aggressive Cars and Trucks.”

The National Transportation Safety Board released a study, which found that between 2005 and 2014 there were 112,580 speed related fatalities in the U.S., representing 31 percent of all traffic fatalities. To put this into perspective, this was practically the same number for alcohol related fatalities, which were 112,948 for the same time period. Arkansas crash data shows 14.5 percent of all crashes are speed related. [11]

The 1996 Speed Limit Study for Arkansas Highways correctly noted that a speed limit increase may result in a short term increase in fatal crash and fatality rates. It also correctly predicted that these rates would continue to decline over time to a point lower than they were when the speed limits were increased. It is logical to assume that this same trend would apply if the decision to increase speed limits is once again made. [12]

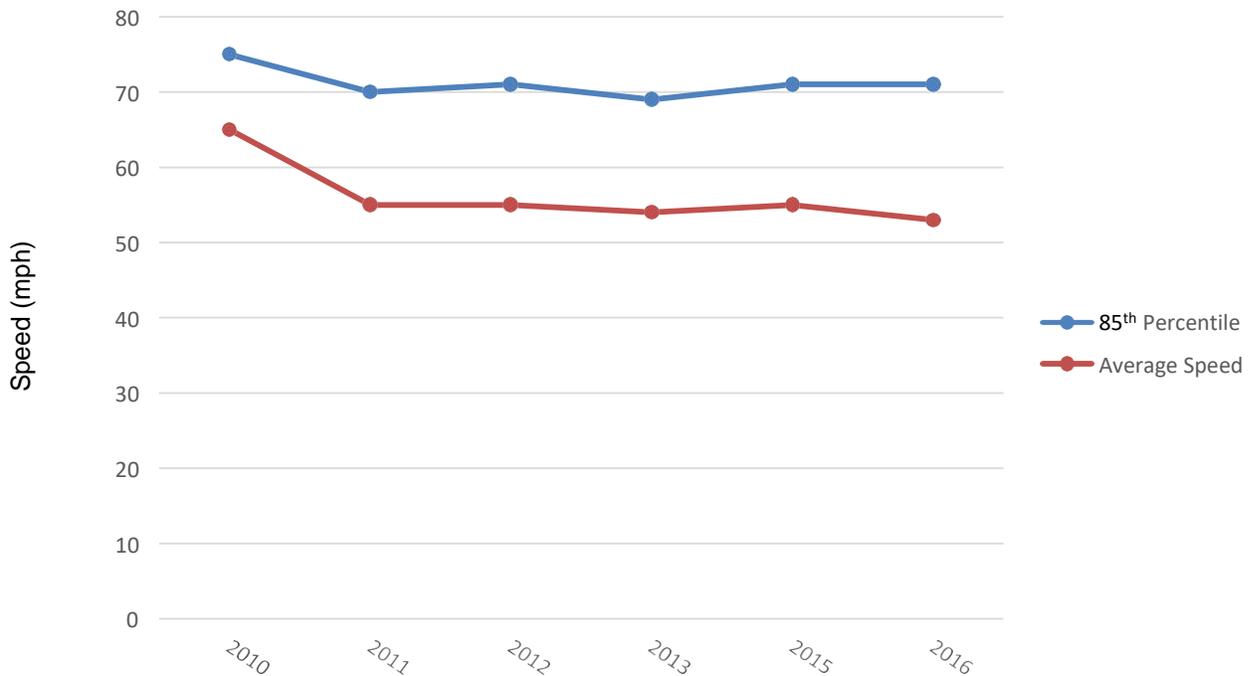
# Speed Trend Considerations

In Arkansas, the average speed and the 85<sup>th</sup> percentile speed were compiled from 2010 to 2016 for three categories of highways: rural freeways, urban freeways, and rural multilane highways. The average speed is the sum of all the speeds divided by the number of vehicles monitored. The 85<sup>th</sup> percentile speed is the speed at or below which 85 percent of the vehicles are traveling.

## Rural Freeways

Figure 8 shows the speed trends for rural freeways in Arkansas. Both the average speed and the 85<sup>th</sup> percentile speed were highest in 2010. In the years following, the speeds have been fairly constant, with the average speeds in the low to mid-fifties, and 85<sup>th</sup> percentile speeds in the low seventies. The average speed in 2016 was 52 mph, and the 85<sup>th</sup> percentile speed was 71 mph.

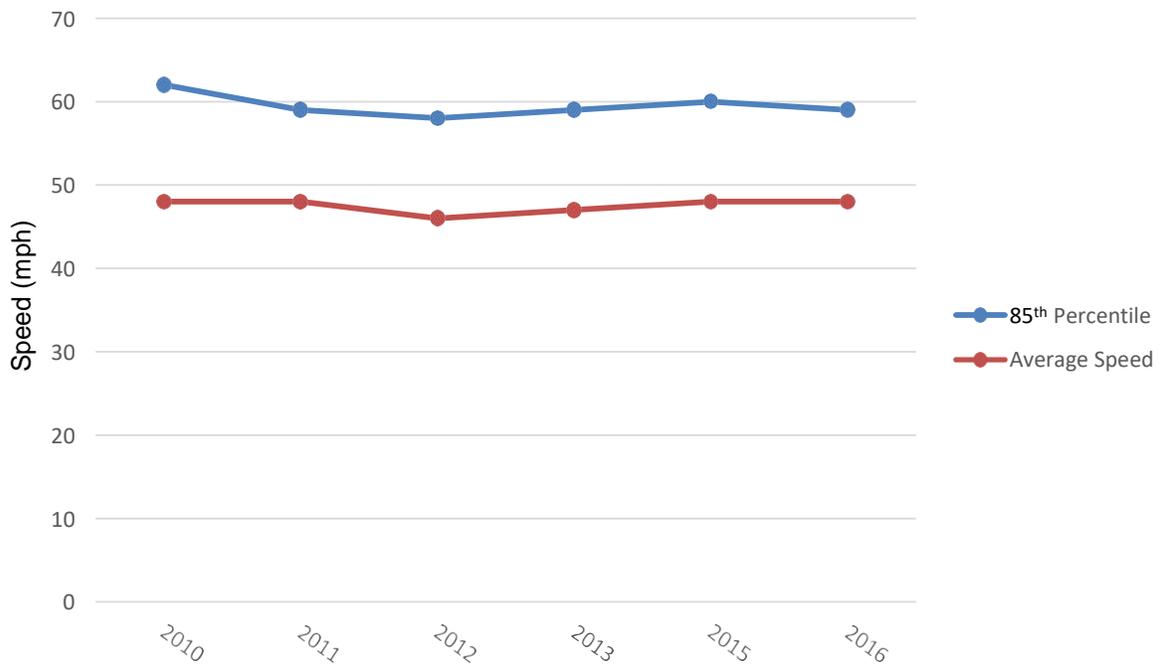
**Figure 8**  
**Speed Trends for Rural Freeways**



## Urban Freeways

Figure 9 shows the speed trends for urban freeways in Arkansas. Similar to the rural freeways, both the average speed and 85<sup>th</sup> percentile have remained fairly constant through the 6-year study period with average speeds in the upper forties and 85<sup>th</sup> percentile speeds in the upper fifties to low sixties. The average speed in 2016 was 48 mph, and the 85<sup>th</sup> percentile speed was 59 mph.

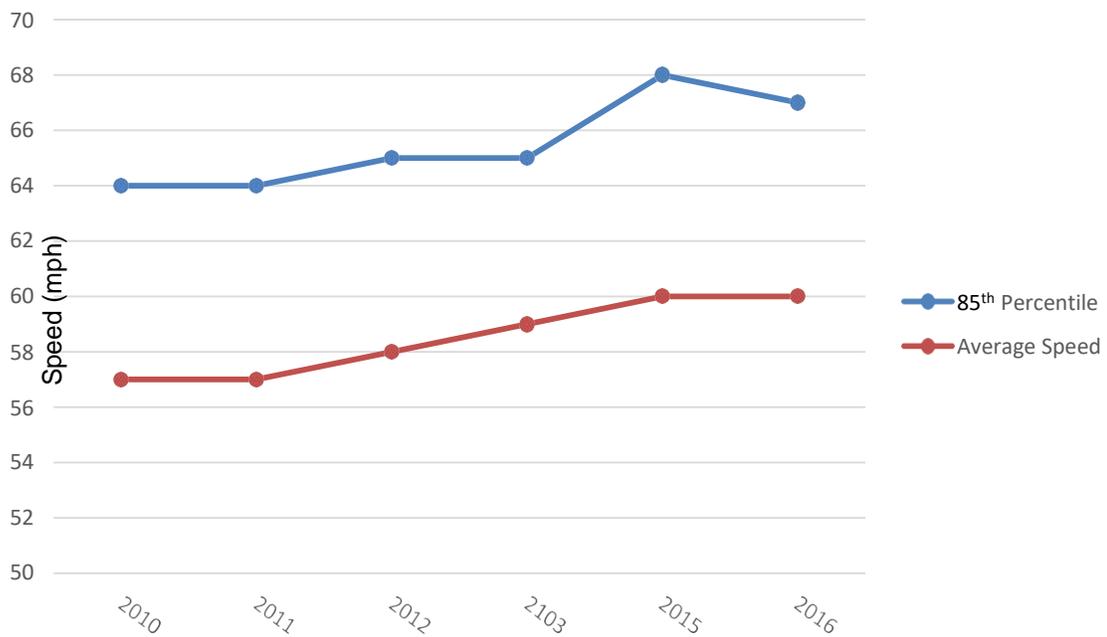
**Figure 9**  
**Speed Trends for Urban Freeways**



## Rural Multi-Lane Highways

Figure 10 shows the speed trends for rural multilane highways in Arkansas. This group of roadways has seen a steady growth in average and 85<sup>th</sup> percentile speeds from 2010 to 2016. The average speed has increased from 57 mph in 2010 to 60 mph in 2016. The 85<sup>th</sup> percentile speed has increased from 64 mph in 2010 to 67 mph in 2016, with a peak of 68 mph in 2015.

**Figure 10**  
**Speed Trends for Rural Multi-Lane Highways**



## **Other Rural Highways**

The 85<sup>th</sup> percentile speeds for rural two-lane highways were compiled in the Department's Districts 2 and 9. These Districts were selected to represent the two predominant types of terrain in the State. The 85<sup>th</sup> percentile speed on two-lane highways in District 2 was 65 mph and the 85<sup>th</sup> percentile speed in District 9, was 60 mph. Based on these compared 85<sup>th</sup> percentile speeds, it would be appropriate for individual speed studies to be performed on rural two-lane highways where increased speed limits are proposed or considered.

# **FINDINGS**

## **Rural Freeways**

Rural freeways are fully controlled access facilities that typically have at least two lanes of traffic in each direction. They are characterized by widely spaced interchanges and little or no recurring congestion. The Department typically uses a 65 or 70 mph design speed for rural freeways, depending on the severity of the existing terrain. Three of the adjoining states currently have posted speed limits of 75 mph on their rural Interstate segments approaching the State line (Interstate 40 in Oklahoma, Interstate 30 in Texas, and Interstate 49 in Louisiana). Missouri and Tennessee have maximums of 70 mph on rural Interstates. Given that the 85<sup>th</sup> percentile speed on rural Interstate segments is 71 mph, an increase of the speed limit to 75 mph as authorized by the Legislature to be feasible.

## **Urban Freeways**

Urban freeways are fully controlled access facilities often with three or more lanes of traffic in each direction. Design speeds range from 60 to 70 mph. They are characterized by very high traffic volumes and closely spaced interchanges with high volumes of traffic entering and leaving the freeway. These facilities may also contain auxiliary lanes that are added and dropped at interchanges as traffic volumes dictate. These operating characteristics lead to a high incidence of merging and weaving, which during peak travel times creates regular, recurring congestion. The 85<sup>th</sup> percentile speed currently being driven on the urban segments of the Interstate system (Interstate 30, Interstate 630, and Interstate 40 in the downtown Little Rock metro area and Interstate 49 in the Fayetteville-Bentonville metro area) is 59 mph. This study recommends that the suburban freeway category be eliminated. This study found the speed limit increase to 65 mph on urban freeways to be feasible in order to provide a uniform speed through the urban areas.

## **Rural Multi-Lane Highways**

Rural multi-lane highways are facilities with at least two lanes of traffic in each direction that are separated by either a grass or paved median. Design speeds on these facilities range from 55 to 65 mph. Previous speed studies have resulted in posted speed limits of 65 mph for facilities with grass medians and 60 mph for facilities with paved medians. The decision on the type of median to construct is based largely on the right-of-way and/or environmental constraints in an area that necessitate a reduced

right-of-way width. Along many routes, the median width and type often changes several times with no obvious reason (such as entering into an incorporated area) to the motorist for the change. The 2012 speed limit study of rural, 4- and 5-lane highways analyzed all of the roadway segments of this type in the State, and determined that the speed limit on a large number of them could safely be increased to 60 mph. The 2012 study showed that the 85<sup>th</sup> percentile speed on these facilities was 63 mph. The current 85<sup>th</sup> percentile speed for all rural multi-lane highways, regardless of median type, is 67 mph. This study found it to be feasible to set the speed limit on rural multi-lane highways at 65 mph regardless of median type to better meet driver expectations, unless an engineering study determines the need for a lower speed limit.

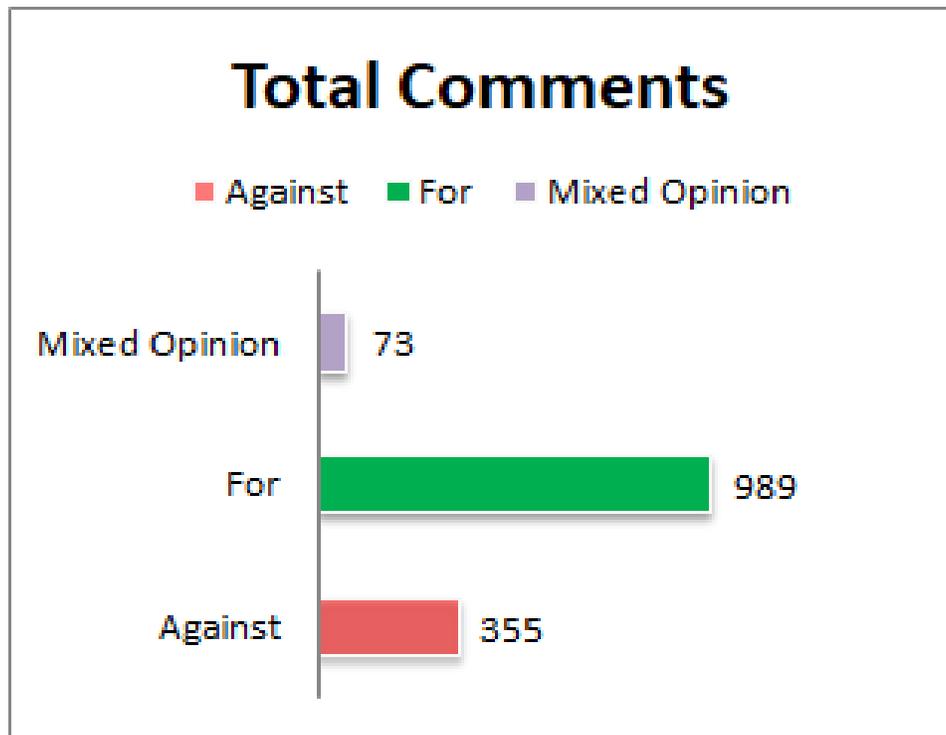
## **Other Rural Highways**

This category comprises the largest portion of the highway system, and as such has the most varied geometry of any of the groups considered. The design speeds for these facilities range from 35 to 65 mph, the lane widths range from 10 to 12 feet, and the shoulder widths vary from zero to eight feet. Many of these routes, especially in the mountainous areas, have no traversable slope beyond the shoulder. The posted speed limit is typically 55 mph. Given the wide range of geometric conditions, it is not practical to analyze this group as a whole when considering an increase in speed limits. There are many routes in this group, particularly in the eastern part of the State, that were designed with a 60 mph design speed and could easily justify an increase in the posted speed limit. The 85<sup>th</sup> percentile speeds were measured in two areas, District 9 to represent the mountainous areas, and District 2 to represent the Delta Region. The 85<sup>th</sup> percentile speeds were 60 mph in District 9 and 65 mph in District 2. Given the disparity in this group, this study recommends that the existing 55 mph speed limit be retained, with the option to increase the speed limit to 60 mph on individual highways where an engineering study determines a higher speed limit to be feasible.

# SUMMARY OF PUBLIC COMMENTS

At the October 18, 2017, Commission Meeting, the Commission approved the release of the Draft report for public comment. The comment period was from October 30, 2017, through December 13, 2017. The following table summarizes the responses from participants. A detailed report of the individual comments is available upon request by contacting the Department's Public Information Office at 501-569-2227 or at [publicinfo@ardot.gov](mailto:publicinfo@ardot.gov).

**Figure 11**  
**Public Comments**



**Table 4**  
**Public Comments by County**

District	County	For	Against	Undecided	Total
2	Arkansas	94	37	10	141
2	Ashley	3	1	0	4
9	Baxter	16	14	0	30
9	Benton	101	25	9	135
9	Boone	2	2	0	4
7	Bradley	2	0	0	2
7	Calhoun	1	0	0	1
9	Carroll	2	3	0	5
2	Chicot	0	0	0	0
7	Clark	3	3	2	8
10	Clay	4	0	1	5
5	Cleburne	1	3	0	4
7	Cleveland	3	0	0	3
7	Columbia	22	0	0	22
8	Conway	4	3	1	8
10	Craighead	51	7	0	58
4	Crawford	51	15	4	70
1	Crittenden	5	1	0	6
1	Cross	2	0	1	3
7	Dallas	0	0	1	1
2	Desha	1	0	0	1
2	Drew	2	0	0	2
8	Faulkner	30	13	1	44
4	Franklin	12	3	1	16
5	Fulton	1	0	0	1
6	Garland	16	13	2	31
2	Grant	2	0	0	2
10	Greene	17	5	0	22
3	Hempstead	6	1	0	7
6	Hot Spring	5	2	1	8
3	Howard	4	0	0	4
5	Independence	14	1	1	16
5	Izard	1	1	0	2
5	Jackson	0	2	3	5
2	Jefferson	8	3	0	11
8	Johnson	9	8	0	17
3	Lafayette	1	0	0	1
10	Lawrence	20	9	1	30

**Table 4 - Continued  
Public Comments by County**

District	County	For	Against	Undecided	Total
1	Lee	0	0	0	0
2	Lincoln	2	0	0	2
3	Little River	5	0	0	5
4	Logan	18	1	1	20
6	Lonoke	18	5	1	24
9	Madison	0	2	1	3
9	Marion	0	2	0	2
3	Miller	12	2	0	14
10	Mississippi	12	3	0	15
1	Monroe	1	0	0	1
8	Montgomery	1	0	1	2
3	Nevada	2	0	0	2
9	Newton	2	1	0	3
7	Ouachita	7	0	0	7
8	Perry	2	1	0	3
1	Phillips	1	0	0	1
3	Pike	2	0	1	3
10	Poinsett	12	1	1	14
4	Polk	4	0	3	7
8	Pope	18	13	1	32
6	Prairie	2	0	0	2
6	Pulaski	63	49	8	120
10	Randolph	2	1	0	3
6	Saline	40	19	2	61
4	Scott	5	2	0	7
9	Searcy	1	0	0	1
4	Sebastian	99	24	5	128
3	Sevier	5	0	0	5
5	Sharp	4	2	0	6
1	St. Francis	0	0	1	1
5	Stone	1	2	0	3
7	Union	9	2	1	12
8	Van Buren	2	1	0	3
4	Washington	93	40	6	139
5	White	22	5	1	28
1	Woodruff	3	2	0	5
8	Yell	3	0	0	3
<b>Totals</b>		<b>989</b>	<b>355</b>	<b>73</b>	<b>1,417</b>

# APPENDIX

1 State of Arkansas As Engrossed: S3/20/19 S3/28/19  
2 92nd General Assembly **A Bill**  
3 Regular Session, 2019

HOUSE BILL 1631

4  
5 By: Representative Vaught  
6 By: Senators B. Davis, Flippo, T. Garner

7  
8 **For An Act To Be Entitled**

9 AN ACT TO AMEND THE LAW CONCERNING MAXIMUM SPEED  
10 LIMITS; AND FOR OTHER PURPOSES.

11  
12  
13 **Subtitle**

14 TO AMEND THE LAW CONCERNING MAXIMUM SPEED  
15 LIMITS.

16  
17  
18 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:

19  
20 SECTION 1. Arkansas Code § 27-51-201(b) and (c), concerning speed  
21 limits, are amended to read as follows:

22 ~~(b)(1)(A) Upon an engineering and traffic investigation, the State~~  
23 ~~Highway Commission may increase the speed limit of a controlled access~~  
24 ~~highway to~~ The maximum speed limit for a motor vehicle operated on a  
25 controlled-access highway is seventy-five miles per hour (75 m.p.h.) if the  
26 controlled-access highway:

27 (i) Is located outside an urban area; and

28 (ii) Has at least four (4) lanes that are divided by a  
29 median strip.

30 (B) The maximum speed limit for a commercial motor vehicle  
31 operated on a controlled-access highway described in subdivision (b)(1) of  
32 this section is seventy miles per hour (70 m.p.h.).

33 (2) The Arkansas Department of Transportation shall erect the  
34 appropriate signs giving notice of the maximum speed limit provided in  
35 subdivision (b)(1) of this section along the controlled-access highway  
36 ~~maximum permissible speeds on controlled access highways shall be effective~~



1 ~~when appropriate signs giving notice are erected along the highway by the~~  
2 ~~Arkansas Department of Transportation.~~

3 (3) Upon an engineering and traffic investigation, the State  
4 Highway Commission may decrease the maximum speed limit on a controlled-  
5 access highway from the speed limit provided by subdivision (b)(1) of this  
6 section.

7 (c) On all facilities other than controlled-access highways under  
8 subdivision (b)(1) of this section, except when a special hazard exists that  
9 requires lower speed for compliance with subsection (a) of this section, the  
10 limits specified in this section or established as authorized shall be  
11 maximum lawful speeds, and a person shall not drive a vehicle on a highway at  
12 a speed in excess of:

13 (1) Thirty miles per hour (30 m.p.h.) in any urban district;

14 (2) Fifty miles per hour (50 m.p.h.) for trucks of one-and-one-  
15 half-ton capacity or more in other locations;

16 (3) Sixty-five miles per hour (65 m.p.h.) on a controlled-access  
17 highway in an urban area ~~for other motor vehicles in other locations~~; and

18 (4) A motor vehicle which is over width, over length, or over  
19 height or the gross load of which is in excess of sixty-four thousand pounds  
20 (64,000 lbs), excluding the front axle, even if operated under a special  
21 permit, shall not be operated in excess of thirty miles per hour (30 m.p.h.).  
22

23 *SECTION 2. Arkansas Code § 27-51-201, concerning speed limits, is*  
24 *amended to add an additional subdivision to read as follows:*

25 (h) As used in this section, "commercial motor vehicle" means any  
26 motor vehicle used in commerce to transport passengers or property when the  
27 vehicle or vehicle combination has a gross vehicle weight rating or gross  
28 combination weight rating, or gross vehicle weight or gross combination  
29 weight of twenty-six thousand one pounds (26,001 lbs.) or more.  
30

31 *SECTION 3. EFFECTIVE DATE. This act shall be effective on and after*  
32 *July 1, 2020.*  
33

34 /s/Vaught

35  
36 **APPROVED: 4/8/19**

**Table 5**  
**Minute Orders Concerning Speed Limits**

Date	Minute Order Number	Action Taken
7/22/1959	3305	Maximum speed 70 mph on fully controlled access routes; Minimum speed 45 mph on fully controlled access routes; and Maximum speed 70 mph on partially controlled access routes.
8/26/1970	70-301	Maximum speed 75 mph on fully controlled access routes; Minimum speed 50 mph on fully controlled access routes; and Maximum speed 75 mph on partially controlled access routes.
5/26/1971	71-284	Maximum speed 60 mph on non-controlled access routes; and Maximum speed 65 mph controlled access routes.
1/23/1974	74-7	Maximum speed 55 mph on all highways.
4/2/1987	87-110	Maximum speed 65 mph on rural interstates; and Minimum speed 45 mph on rural interstates.
1/28/1988	88-010	Maximum speed 65 mph rural sections of US Highways 65 and 67; and Minimum speed 45 mph on rural sections of US Highways 65 and 67.
8/28/1996	96-148	Maximum speed 70 mph/trucks 65mph on rural freeways; Maximum speed 60 mph suburban freeways; Maximum speed 55 mph urban freeways; and Maximum speed 60 mph rural expressways with high type partial control of access.

Date	Minute Order Number	Action Taken
5/25/1997	97-104	Authorized increase on rural expressways where recommended by route specific engineering studies.
9/22/1998	98-215	Maximum speed 65 mph suburban freeways; and Maximum speed 60 mph urban freeways.
6/12/2012	2012-059	Maximum speed 60 mph on rural, undivided 4- and 5-Lane highways where warranted.
3/11/2015	2015-020	Removed maximum speed 65 mph for trucks; and Established maximum speed 70 mph for all vehicles on rural freeways.
10/18/2017	2017-098	Allowed to increase maximum speed 75 mph on controlled-access highways and Maximum speed 65 mph on all other routes.

# Literature Review Bibliography

- [1] Farmer, Charles M. "Relationship of traffic fatality rates to maximum state speed limits." (2016).
- [2] "Speed Management in Kansas", a presentation made by Steven Buckley, KS State Highway Safety Engineer. NHTSA Region 7 Partners Meeting (2015).
- [3] Joksch, Hans C. "Velocity change and fatality risk in a crash—a rule of thumb." *Accident Analysis & Prevention* 25.1 (1993).
- [4] Elvik, Rune. *The Power Model of the relationship between speed and road safety: update and new analyses*. No. 1034/2009. 2009.
- [5] Friedman, Hedeker, and Richter. "Long-term effects of repealing the national maximum speed limit in the United States." *American Journal of Public Health* 99.9 (2009).
- [6] Liu, Cejun, and Chou-Lin Chen. *An analysis of speeding-related crashes: definitions and the effects of road environments*. No. HS-811 090. 2009.
- [7] Kockelman, Kara, et al. *Safety impacts and other implications of raised speed limits on high-speed roads*. No. 303. Transportation Research Board, 2006.
- [8] "Speed Limits" <https://tti.tamu.edu/group/stsc/files/2011/03/Speed-Limits-Final.pdf>. Texas Transportation Institute (Published in 2011, Accessed on 03/10/2017)
- [9] "Status Report" <http://www.iihs.org/externaldata/srdata/docs/sr3401.pdf#page=4>. Insurance Institute for Highway Safety (Published in 1999, Accessed on 03/10/2017)
- [10] "Arkansas 2017 Strategic Highway Safety Plan" <http://www.arkansashighways.com/> (Published on 07/23/2017, Accessed on 08/16/2017)
- [11] "Reducing Speeding-Related Crashes Involving Passenger Vehicles" National Transportation Safety Board – NTSB/SS-17/01; PB2017-102341
- [12] "Speed Limit Study for Arkansas Highways" (Adopted by Arkansas Highway Commission Order 96-148 on 8/28/1996).



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

Region 7  
Arkansas, Iowa, Kansas,  
Missouri, Nebraska

January 31, 2018

901 Locust, Suite 466  
Kansas City, MO 64106  
Phone: 816-329-3900  
Fax: 816-329-3910

Bridget White  
Administrator  
Arkansas Highway Safety Office  
Arkansas State Police  
#1 State Police Plaza Drive  
Little Rock, Arkansas 72209

Dear Ms. White:

*Bridget*

The National Highway Traffic Safety Administration (NHTSA) Region 7 staff and I have carefully reviewed and analyzed Arkansas' 2017 Highway Safety Annual Report. Based on the specifications of 23 CFR 1200.35: *Annual Report*, I find the document to be complete and accept it in fulfillment of the regulatory requirements. We would like to recognize your accomplishments and strategies implemented to create another successful year in traffic safety.

Congratulations to you, your office staff, and traffic safety partners who contributed towards achieving a six percent increase in seat belt usage in FY 2017, this is up from 75 percent in FY 2016 to 81 percent in FY 2017. Your commitment to bolster your enforcement efforts are paying dividends, and there is still room for improvement as 40 percent of your fatalities in 2017 were unrestrained. With greater enforcement initiatives such as expansion of the High Five Rural Enforcement Project, the number of unrestrained fatalities will be improved.

With a large number of States experiencing an increase in overall fatalities, I was pleased to see that Arkansas experienced a one percent reduction in fatalities from 550 in FY 2015 to 545 in FY 2016. To help maintain your momentum, we suggest developing more sustained enforcement efforts and countermeasures.

We are pleased how instrumental the Impaired Driving Task force has been with developing new countermeasure strategies that have helped reduce your impaired driving fatalities by 26 percent from 158 in FY 2015 to 117 in FY 2016. What is also significant about this decrease is that it was aided by the efforts of 200 local law enforcement agencies that do not receive any overtime support, but still participated in your *Click It or Ticket* and *Drive Sober or Get Pulled Over* campaigns. We hope these non-grant agencies will become a part of your mini sTEP operations and expand your overall enforcement efforts across the State.

Thank you also for your interest to participate in the first Regional "420" Enforcement event this April 2018. This will be an exciting new enforcement event with the hopes that great attention will be brought to driving under the influence of marijuana or any other drug raises the risk of being involved in a crash and a potentially deadly crash, and drivers found to be driving under the influence will be arrested.



WFOA 3/6

We commend you for increasing your speed enforcement efforts which resulted in a 72 percent increase in speed citations written from 10,605 in FY 2016 to 18,252 in FY 2017. Speed enforcement efforts can also serve as a catalyst for officers to enforce seat belts and impaired driving offenses which often occur during these enforcement traffic stops.

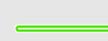
Speed was also identified as a contributing factor for fatalities and injuries in Arkansas as speeding related fatalities rose 27 percent from 92 in FY 2015 to 117 in FY 2016. I encourage you to look for new and innovative strategies to deploy more speed enforcement events across the State, which could also be included in your High Five Enforcement efforts.

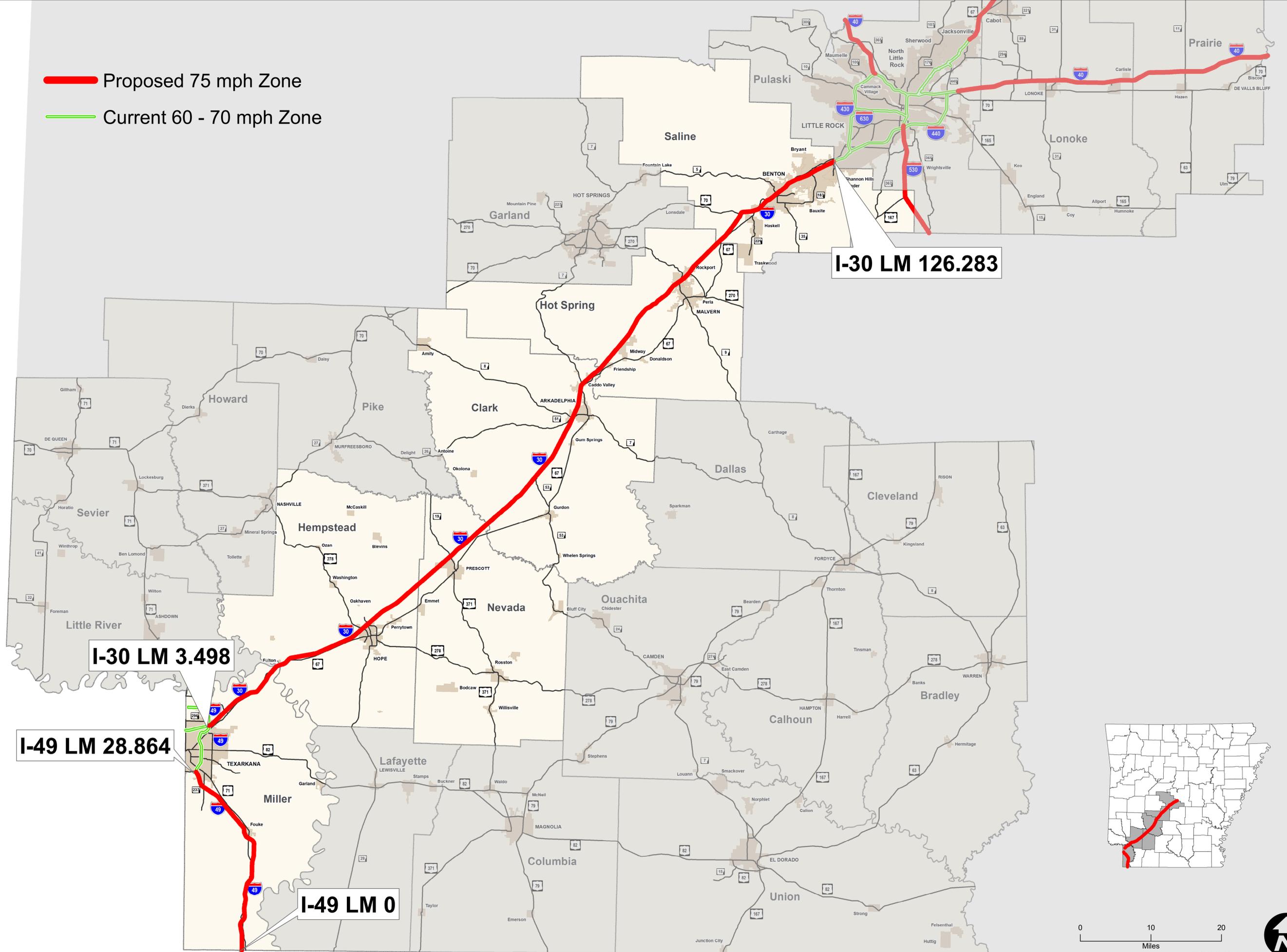
When considering projects and/or strategies for your FY 2019 Highway Safety Plan, I encourage you to consider the following:

- Recruit more local agencies to conduct mini sTEP grants for seat belt and speed enforcement by having your Law Enforcement Liaison's recruit the 200 non-grant law enforcement agencies that work the National Mobilizations.
- Conduct both the Occupant Protection and Impaired Driving Assessments in FY 2019.
- Create more speed enforcement activities.





 Proposed 75 mph Zone  
 Current 60 - 70 mph Zone

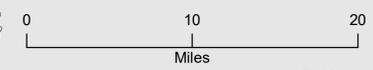
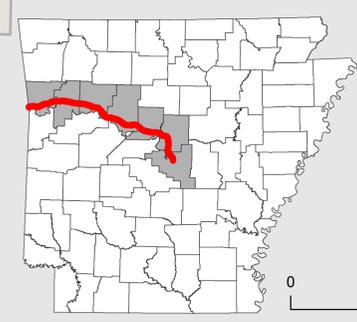


Arkansas Department of Transportation  
I-40 - Oklahoma State Line to Little Rock  
Proposed Speed Limits

I-40 LM 0

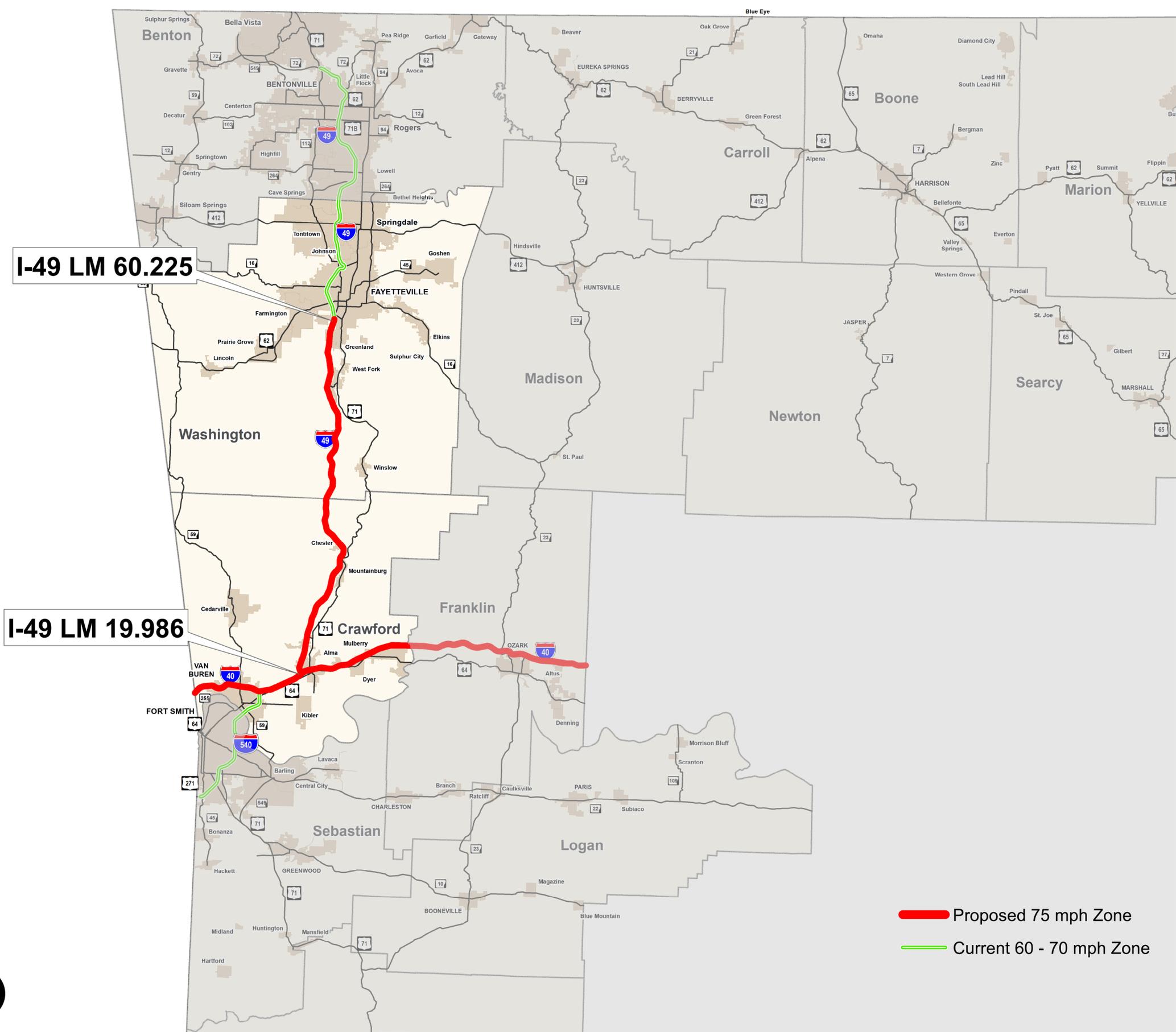
I-40 LM 147

- Proposed 75 mph Zone
- Current 60 - 70 mph Zone

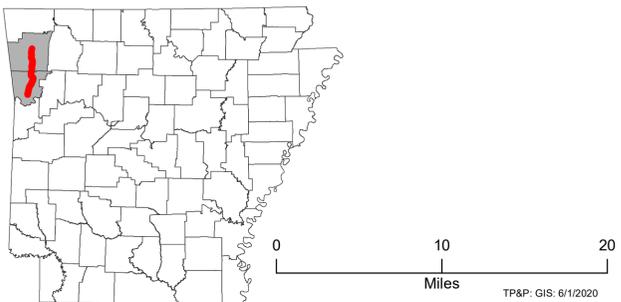




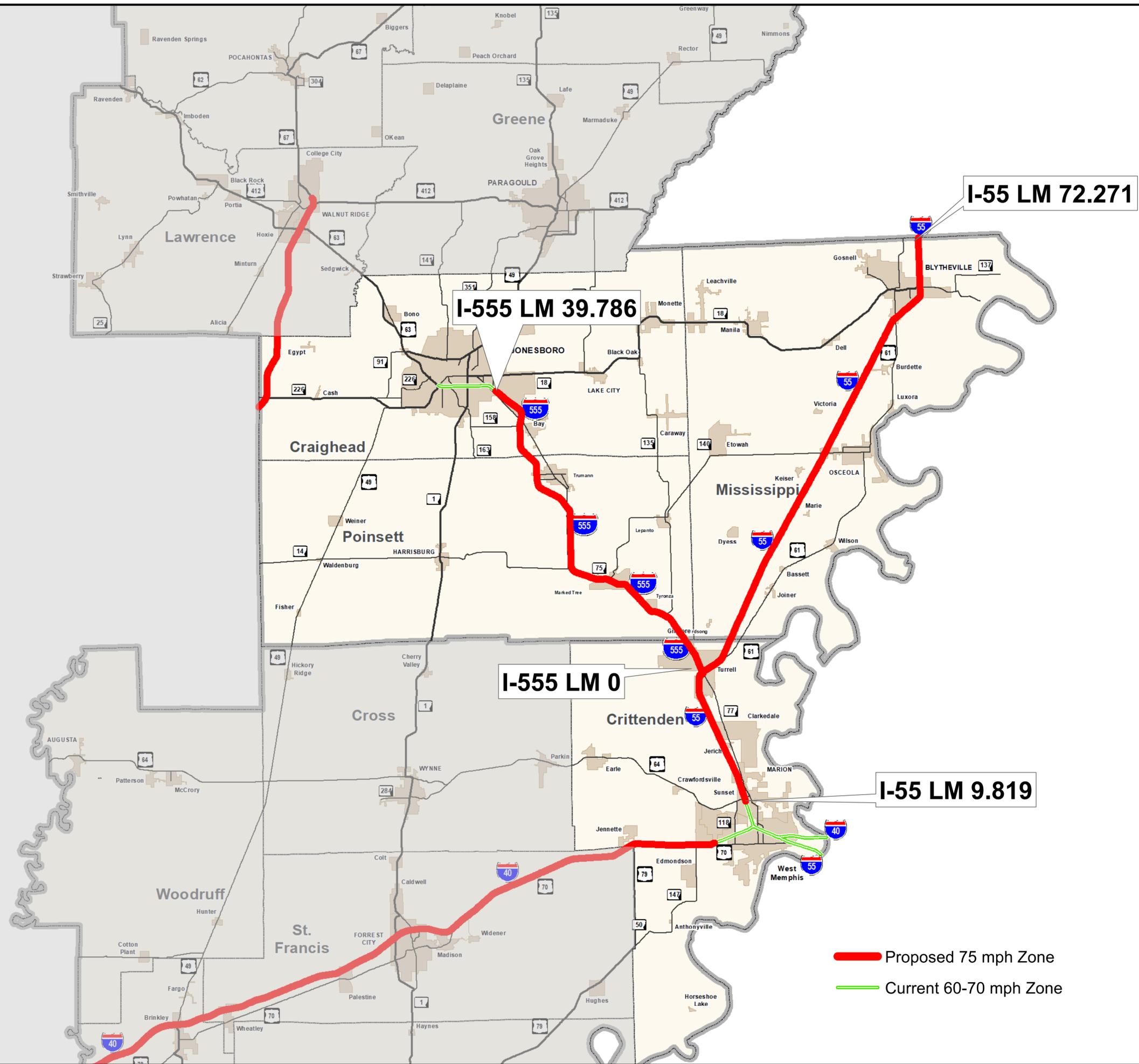
Arkansas Department of Transportation  
I-49 - I-40 Interchange to Fayetteville  
Proposed Speed Limits



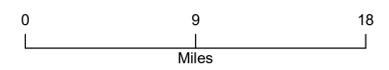
Proposed 75 mph Zone  
Current 60 - 70 mph Zone

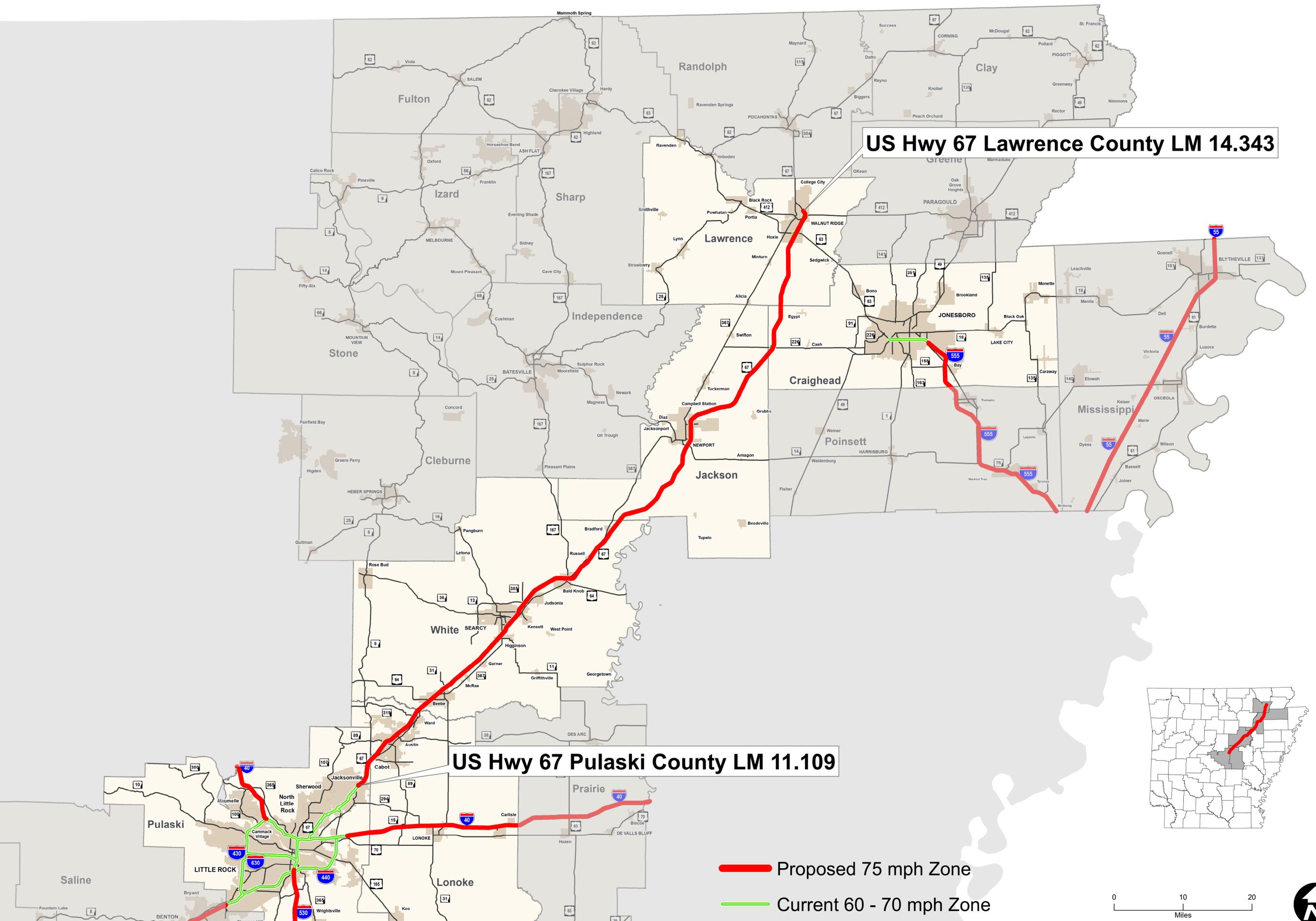


**Arkansas Department of Transportation**  
**I-55 - Marion to Missouri State Line**  
**I-555 - I-55 Interchange to Jonesboro**  
**Proposed Speed Limits**

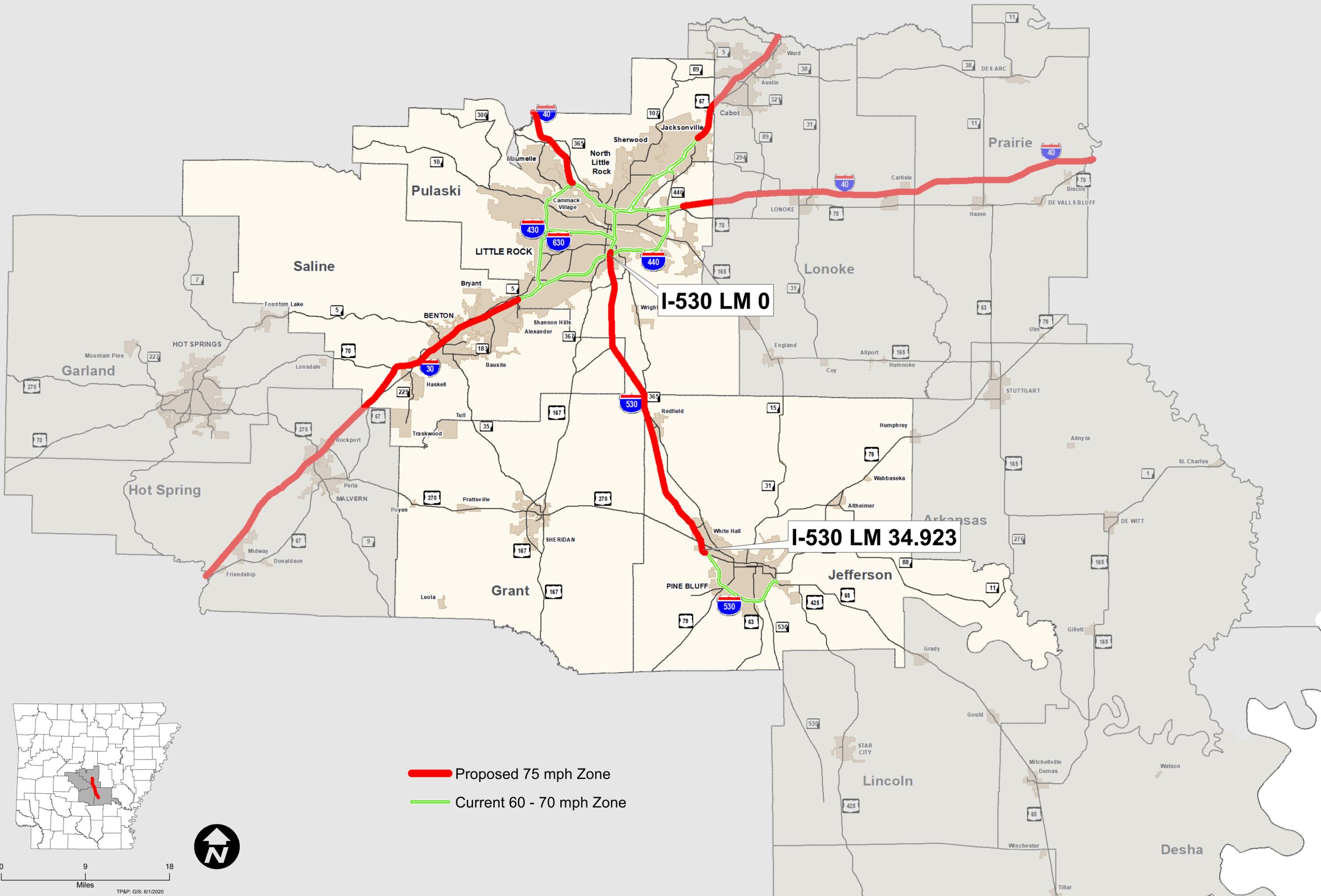


**Proposed 75 mph Zone**  
**Current 60-70 mph Zone**





Arkansas Department of Transportation  
I-530 - I-30 Interchange to Pine Bluff  
Proposed Speed Limits



Proposed 75 mph Zone  
Current 60 - 70 mph Zone



0 9 18  
Miles  
TP&P, GIS: 6/1/2020

