**­­­­Literature Review to support later final report writing**

National Highway Traffic and Safety Administration. (2021) Traffic Safety Facts 2021 Data. *U.S. Department of Transportation. Retrieved from:* [2021 Data - Pedestrians (dot.gov)](https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813458)

* This write up gives a statistical insight into crashes and those involved in them in the year 2021. From the data it is shown that there was a 12.5 percent increase in pedestrian fatalities than in previous years. Although much of this was attributed the time of day, location, and population density an interesting pattern of incidents appeared from the data. Reviewing figure 2 it was shown that a significant amount of these incidents occurred during later hours and on the weekend. This in comparison to midday driving on weekdays were the percentage of pedestrian driving is estimated to be two percent.

One substantial takeaway from this data would be the possibly involvement of younger drivers who were not maintaining safe driving habitats. Habitats such as these can include driving under the influence, driving while distracted (the presence of a cell phone), driving while drowsy and other factors. To back these potential factors the inclusion of other literature review to study the habitats of young drivers will be reviewed. In terms of the project the potential analysis of time and day of week may be beneficial as determinate factors for compliance.

Nakano, Y., Okamura,K., Kosuge,R., Kihira,M., Fujita,G. (2019) Effect of Visible Presence of

Policing Activities on Drivers’ Viligance and Intention to Refrain from Non-driving

Activities: A Scenario-based Survey of General Japanese Drivers. *Accident Analysis and*

*Prevention.* Retrieved from: <https://doi.org/10.1016/j.aap.2019.105293>

This article goes in depth on distract driving and potential ways to mitigate these occurrences. This article mostly focuses on distracted driving and does not include information regarding move over slow down laws since it was created in Japan. It does introduce the idea of the presence of a police vehicle being a contributing factor towards the desired behavior. The data gathered from this study would be generalization and in the final written report could be utilized due to their inclusion of a fair amount of demographics. The psychological impact of the presence of a police vehicle could be a great factor for the exploration of the study.

In the study results showed that in the presence of a police vehicle the drivers were less likely to engage in distracted driving and thus remained more attentive to the road. In the setting of our current study the use of a police vehicle could be analyzed to determine if compliance rates would increase based on the idea of the driver not wanting to risk getting a ticket. This coupled with the presence of reinforcement by the officer (writing citations to those who openly do not comply with the new law) could allow for the increase compliance rates and thus decrease any potential fatalities for those who are temporarily stuck on the side of the road.

Lenne,M., Triggs, T., Redman,J. (1997). Time of Day Variations in Driving Performance.

*Accident Analysis & Prevention.* 29(4) 431-37. Retrieved from:

<https://doi.org/10.1016/S0001-4575(97)00022-5>.

This study shows how time of day can be a significant impact on the driving abilities of the individual operating the vehicle. The study took a group of people and placed them within a driving simulator to determine if the time of day had any significant impact on their capabilities. The study found that around two and six am the capabilities of the driving drops significantly with an increase in skill at around 10 am. This with the inclusion that most drowsy driving occurs because of young provides the research with some interesting factors.

Future implications for policy change could be the inclusion of better educational opportunities for young drivers. Studies have shown that the increase in education can decrease future mistakes such as the drowsy driving. This article allows for the analysis of high risk factors such as increased chance of a fatality occurring based on the time of day. The analysis of the various times can lead to future policy alterations to increase education regarding drowsy driving. These educational opportunities may decrease these habits and provide emergency service responders with better protection as a more aware driver would be more likely to comply to a move over and slow down law.

Rivellli, E., Kempken, M. (2022). Drunk Driving Statistics. Retrieved from: <https://www.bankrate.com/insurance/car/drunk-driving/>

* This article provides an insight as to who is most vulnerable in terms of driving while under the influence of alcohol. It was shown that the ages between 21-24 were responsible for 27 percent of all DUIs while 25-34 were responsible for 25 percent. According to the previous article in this literature review this age range is also the highest risk for driving while drowsy. These facts further the idea of the implementation of educational programs could decrease the rate of these occurrences and could increase the amount of safe drivers on the road.
* Although we can not evaluate the age range for this study due to the fact we are limited by our data collection being cameras only. The incorporation of previous studies could allow us to propose future litigation that could decrease these occurrences in the future. The younger generation is by far the most susceptible for these incidents and by decreasing this frequency we could potentially increase compliance rates towards the move over and slow down law.

Han,L., Du,Z., Wang, S., Chen, Y. (2022). Analysis of Traffic Signs Information Volume

Affecting Driver’s Visual Characteristics and Driving Safety. *Internal Journal of*

*Environmental Research and Public Health.* 19 (16): 10349. Doi: https://doi.org/10.3390%2Fijerph191610349

This study utilized eye tracking technology to determine the drivers ability to comprehend road signs at three various speeds. The study measured how long the driver would analyze a road sign while driving at three separate speeds to determine how quickly they were able to understand the information. Factors such as color, positioning of the sign, and words on the sign were randomized and allowed for the control of the experiment. The experiment showed that as speed increased the time the driver looked at the road sign increased as well. This allowed the researchers to conclude that as speed increases their ability to comprehend the information from the sign decreased.

For our research were many of the pedestrians or emergency medical personal are broken down on the side of the road on a major highway the use of basic signage such as an arrow would be most beneficial. The study also showed that the less information needed to be processed by the individual the better the results would be for compliance. Thus, the use of the signs that commonly resemble large arrows would be a strong factor for analysis in the rates of compliance for drivers for the move over slow down law.

National Safety Council. (2021). Crashes by Tim of Day and Day of Week. *National Safety*

*Council.* Retrieved from: https://injuryfacts.nsc.org/motor-vehicle/overview/crashes-by-

time-of-day-and-day ofweek/#:~:text=During%20the%20spring%20and%20summer,p.m.%20to%207%3A59%20p.m.

This website can provide us information regarding the time of day and percentage of crashes in accordance to those times. As notes by the National Safety council the time of year can have a lasting impact on which time is most likely to see a peak in crashes. For example, during the spring and summer month fatal crashes tended to spike between the times of 8pm and midnight. While Fall and Winter seasons showed that the times between 4 and 7 were the most likely times for a crash to occur.

This data can support our findings if we detect a trend in time of days in comparison to compliance rates. Potential reasoning for lower compliance rates could rate from visibility issues to driver drowsiness which is effectively their ability to comply at that time. Another area of impact to be studied from this would be the day of the week since it is shown that more accidents occur during the weekend. Whether it is higher rates of traffic, driving under the influence or other factors that area can be reviewed to determine any potential factors that could affect compliance rates with the move over slow down law.

Miles,V., Gurr, F., Giani,S. (2022). Camera-Based System for the Automatic Detection of

Vehicle Axle Count and Speed Using Convolutional Neural Networks. *International*

*Journal of Intelligent Transportation Systems Research.* 20 778-92. Retrieved from: <https://link.springer.com/article/10.1007/s13177-022-00325-1>

This article will allow for the comparison of previous studies to ensure the accuracy of our results. this study used a camera-based system to automatically detect the speed of the vehicle it was mapping. Using the acquired technology, the system was proven to be between 95 and 98 percent accurate across all measures. Using technology to account for axel counts the technology proved to show 93 percent accurate findings. One major limitation identified by the study was roads that were not in compliance with government standings may provide inaccurate data. The accidental inclusion of this data may lead to inaccurate results.

For our study ensuring that accurate mapping of the roadways is crucial. Therefore, areas with major constructions where lane lines may not be clearly visible may need to be excluded from the data to ensure accurate results. Other factors that could be preventing clear visualization of the camera and its target will also need to be evaluated to determine if the video and situation meets the research criteria. The article also showed collaboration with a company called Q-Free which is an organization built on designing a top-of-the-line traffic management and observation system. Further analysis of the organization in terms of their daily operations may provide insight into our efforts of utilizing cameras to observe traffic trends.

Hamzeh, Y., Rawashdeh,S. (2021). A Review of Detection and Removal of Raindrops in

Automotive Vision Systems. *Journal of Imaging. 7(3) 52.* Retrieved from:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8321291/

In terms of our testing we must ensure that the cameras we are using are able to accurately track and reflect the location of the car (to determine if they have moved over a lane) as well as if they have slowed down. This article shows that new smart cars that are fitted with the highest quality cameras are often impacted by rain. Heavy rainfall can significantly impact the quality of an image and its ability to portray aspects such as lane placement, speed and information collection from road signs. The following study can be backing for our own as we analyze the possibility that other weather phenomenon can greatly impact our ability to gather consistent data.

The rain itself can also impact the cameras’ ability to have consistent objection detection abilities. In these circumstances the camera and its algorithm is unable to consistently track the placement of the car and thus will provide inaccurate results. These results are also true of glare as a potential harmful effect on the quality of the camera and the findings. This article overall will provide as a basis as to which weather conditions can significantly impact our results

Wu,X., Lum,C., Koper,C. (2021). Do Everyday Proactive Policing Activities Reduce Crashes?

Examining A Commonly Held Law Enforcement Belief Using a Novel Method.  *Journal*

*Of Criminal Justice.* Doi: https://doi.org/10.1016/j.jcrimjus.2021.101846

The article shows that with regular police monitoring the frequency of crashes occur at a lower level. With regulation of policy, in this instance patrol, more compliant behavior to the law was observed. Therefore, with establishing a more regularly occurring presence of police when emergency services are operating at the side of a road more compliance would be noticed. The study also utilized the Data- Driven Approach to Crime and Safety Program. This program utilizes data to analyze the most likely areas to have accidents occur and outlays a map to show these trends.

The utilization of these maps may outline areas than in the case of emergency medical personnel are present the police should be present as well. The above article demonstrated two types of police involvement: generalizable more involvement as well as proactive. In this instance the continued ticketing of those who do not comply with the slow down and move over law would be representative of the proactive side. The idea behind this is regular reinforcement will allow for a higher compliance rate with the law.

Scchrock, S., See,C., Mulinazzi,T., (2008). Public Opinion and Understanding of Advance

Warning Arrow Displays Used in Short-Term, Mobile, And Moving Work Zones. *The*

*University of Kansas.* Retrieved from

https://intrans.iastate.edu/app/uploads/2018/08/2008-schrock-advance-arrow.pdf

The article above article demonstrated the effectiveness of the presence of the flashing arrows on the board as an indication for drivers to enter another lane. In this instance around 88 percent of all individuals immediately saw and understood the sign was intended for them to move over. The color, size, and placement of the sign were also large contributing factors for the individuals to both understand and comply with the sign. Many participants also said that they were more likely adhere to the signage if the presence of the obstruction was visible early on. The presence of information on another sign regarding the reason for lane closure was also shown to be greatly preferred.

From this study it can be gathered that the presence of signage greatly increased compliance rates in terms of traffic closure. Theoretically, the same findings should be applied to when vehicles are on the side of the road (with or without the presence of emergency medical services). The possibility for signage around town could also allow for consistently high compliance rates in the future. For example, some communities utilize the click it or ticket slogan to increase seatbelt compliance. The same idea can be applied to increase slowing down and moving over by using a slogan or signage to promote such ideas. The findings from this study could provide a backing to review potential implementation of policy to require the presence of these signs if possible. This as well as the policy regarding the potential use of slogan and popular media may lead to increase compliance rates.

National Law Enforcement Officers Memorial Fund. Causes of Law Enforcement Death.

https://nleomf.org/facts-figures/causes-of-law-enforcement-deaths. Accessed June 12,

2023.

From the following source it is noted that during the decade of data collection (2012-2022), around a fifth of total deaths were the result of a car crash or the officer being struck by a vehicle. The data we are most concerned with would be the total of enforcements who were struck by a vehicle while in the line of duty. It was estimated that 166 law enforcement officers were hit by vehicles during the time outlined. Upon reviewing the resource it is noted that this number indicates a substantial increase in fatalities. This could be correlated to increase travel as COVID was dying down, but regardless of it places an emphasis of importance on the compliance rates of the move over and slow down laws.

Shealy,T., Kryschtal, P.,Franczek,K., Katz,B. (2016). Driver Response to Dynamic Message

Sign Safety Campaign Messages. *Virginia Department of Transportation.* Retrieved

from: <https://www.virginiadot.org/vtrc/main/online_reports/pdf/20-r16.pdf>

* The study above focused on the use of message boards to elicit better driving habits from the drivers in the area. The Virginia Department of Transportation focused on the use of various message types to study if any form of message was more beneficial than the rest. Some of these included messages intended to elicit an emotional response, message including statistics, or emotionless messages. The impact of these messages were to be recorded using a fNIRs, which is a device that measures the amount of blood flow to a particular area of the brain.

For this study the fNIRS measured the blood flow to the prefrontal cortex. The prefrontal cortex became the area of study due to the fact it is the executive control area of the brain. Participants of the study would be showed road sign messages and based on their blood flow to the prefrontal cortex would be measured for road sign effectiveness. The study found statistically significant responses from signs utilizing humor, negative emotion, or a plan on words to be most effective. Although there was a statistically significant gap between emotional responses in men and women it was not shown to be vast. This study may urge us to in the final report urge the implementation of signage around the city as a way of educating the general public and increase compliance rates to the move over slow down law.

Yang,B., Tang, M., Chen,S., Wang,G., Tan,Y., Li,B. (2020). A Vehicle Tracking Algorithm

Combining Detector and Tracker. *EURASIP Jounral on Image and Video Processing.* 17.

Doi:  <https://doi.org/10.1186/s13640-020-00505-7>

* The above study utilizing numerous methods to ensure the accurate tracking of each vehicle using cameras is conducted. Prior methods of correlation filters are often time consuming and can produce occlusions which in turn create inaccurate information in terms of vehicle tracking. Detection based Tracking is implemented with the constraints of object attribute information and intersection over union. These features provide the most accurate information and could go to serve as a strong basis for checks when we determine the accuracy of our own results.
* To ensure the computer is continuing to track the same vehicle and not switch to a potential nearby similar car the utilization of spatial positioning, moving direction and historical features of the car are used. However, the use of spatial positioning may become confusing to track with the algorithm due to high density roads. This couple with similar features on cars near one another may lead to inaccurate information. The study concluded that the best approach for this resource was the use of object tracker-detector with an object tracking algorithm.

Li,Z., Chen,Y., Yen,Z. (2019). Vehicle Tracking Fusing the Prior Information of Kalman Filter Under Occlusion Conditions. *Sn Applied Sciences.* Retrieved from:

<https://link.springer.com/article/10.1007/s42452-019-0852-2>

* This paper highlights one of the most challenging aspects of utilizing vehicle tracking algorithms to accurate monitor traffic. Occlusions in traffic are consistent of high traffic areas which in turn provides inaccurate information in terms of tracking a single vehicle for data extraction. The current study proposes the use of Kalman Filter to fill in unknown factors about each vehicle and thus prevent occlusions and provide more accurate data.
* The Kalman filter otherwise known as the linear quadratic estimation theory uses a series of measurements to best predict an unknown measurement. In this case where a vehicle is moving the vehicle is tracked via the algorithm and in the event of an occlusion the Kalman filter estimates its final destination to provide for the most accurate information. This method is shown in the study to be greatly improved in the aspects of background updates, morphological operations, occlusion judgment and vehicle description. This algorithm in the study showed to have a large range of success in providing accurate data and preventing occlusions.

Hardy,A., Lee,S., Al-Kaisy,A. (2006). Effectiveness of Animal Advisory Messages on Dynamic

Message Signs as A Speed Reduction Tool: Case Study in Rural Montana. 1973 (1).

Doi: <https://doi.org/10.1177/0361198106197300108>

* The above study conducted a case study in rural Montana to see if temporary placement of signage regarding the slowing down to avoid injury to wildlife was effective in lowering average driving speed. Three dynamic message boards were utilized for the study and over time displayed one control message as well as three treatment messages were utilized. The one control message would be left blank while the treatment messages would be information regarding either general driving habits, or the slowing down to protect wildlife.
* The study showed that the messages did elicit a general decrease in speed from the motorists and thus better protection for the wildlife. However, the temporary digital message boards showed to be more impactful than the permanent ones. These signs also showed to be more impactful on driver’s speed when it was at night. The above would inform our use of signage for future legislation. As prior literature has alluded to the use of emotional response messages often elicit a better response by drivers. Utilizing these signs to urge for better driving for the safety of officers would help increase compliance rates.

Hiebner, E. (2022). Effects of Emergency Vehicle Warning Lighting System Characteristics on

Driver Perception and Behavior. *Embry-Riddle Aeronautical University.* Retrieved from:

https://commons.erau.edu/cgi/viewcontent.cgi?article=1665&context=edt

* The above article chose to study the use of various emergency vehicle lighting patterns to determine if a correlation between colors, brightness and frequency had any correlation to compliance rates for the move over slow down law. Data showed the typically combination of the red and blue lights yielded a statistically significant compliance rate of nearly 80 percent while the use of amber lights yielded a 68.8 percent compliance rate. In other states, such as Florida, drivers were complying with the move over law at a 75.9 percent rate versus a 5.8 percent compliance for the slow down law. The visibility of the typical red and blue lighting in both cases proved to elicit a higher compliance rate.
* The study’s overall goals were to determine what combination of color, brightness, modulation, and flash rate would be most effective on driver perception and compliance. From the study it was noted that with higher brightness the visibility was not noted to change but rather the glare. The overall perceived saturation of color was proven to be the key element as well as the pairing with the typically thought of police colors; red and blue. The above study could serve as a backing to our belief that the presence of police vehicles are associated with a better compliance rate.

Boyle,L. (2014). Effectiveness of Safety and Public Service Announcement Messages on

Dynamic Message Signs. *Department of Transportation.* Retrieved from

<https://ops.fhwa.dot.gov/publications/fhwahop14015/fhwahop14015.pdf>

* The above article focused on the use of public service announcements on digital message boards to increase drivers’ compliance to road laws. The study issued a survey to multiple cities and received 2,088 responses. The reason for this study was to measure the perceived effectiveness of digital messaging board on driver compliance rate. Of the selected individuals many said they both saw and understood the meaning behind the messages on the board. The most important finding from this study is that drivers were more likely to comply if they found the intended message to be useful towards theirs and others safety.
* Out of the group analyzed it was found that the younger generation of drivers, 30 or below, were the only group who found the message boards to not be helpful. Some of the potential reasoning behind the belief of whether this was correlated between belief of effectiveness and importance of these road signs and socioeconomic status. Since prior literature has noted that the younger generation is the most at risk for a car crash it is crucial to edit these signs to gain the attention of the younger generation. The implementation of policy and programs to educate this generation may also prove critical for the future increase in compliance rates towards the move over and slow down law.

Megat-Johari,N., Savolainen,P., Gates,T., Kassens-Noor,E. (2021). Examining Driver

Compliance With A Move-Over/Slow Down Law in Consideration of Vehicle Type and

Messages Displayed on Upstream Dynamic Message Signs. *Transportation Research*

*Record: Journal of the Transportation Research Board.* Doi:

<https://doi.org/10.1177/03611981211027880>

* The above article focuses on a very similar project idea to our own with the inclusion of the presence of digital messaging boards. Various locations were used to account for potential confounding data associated with data collection from a singular point. The messages themselves did not seem to have a significant impact except for the move over and slow down law seeming to have a better reach towards drivers. Drivers were also noted to be more likely to move over and reduce their speed in the presence of a police vehicle on sight.
* A basic linear regression model was utilized to demonstrate the impact of message boards as well as police cars on the compliance rates to the move over and slow down law. The data shows that digital message boards with the move over slow down message demonstrated a -1.619-correlation rate in terms of speed. When this message was also paired with a 400 dollar fine the rate of decrease in speed increased to -1.939. Of the thousands of vehicles studied only 13 percent would decrease their speed by at least 10 mph. However, it was noted with the messaging boards posted nearly 90 percent of vehicles would slow down and move into the adjacent lane. This study provides us with a great backing as the data collection as well as the methods of analysis are similar.

United States Department of Transportation. (2022). Synthesis of Studies That Relate Amount of

Enforcement to Magnitude of Safety Outcomes. *National Highway Traffic Safety*

*Administration.* Retrieved from: <https://rosap.ntl.bts.gov/view/dot/62378>

* The above article was written and proposed by the United States Department of Transportation. Under authority from Congress the National Cooperative Research and Evaluation Program was formed to conduct research and evaluations on state highway safety measures. It was after this formation that although there has been fast research regarding the presence of police on deterring unsafe driving habits little was known regarding the amount of law enforcement and its impact on safety.
* From this the study analyzed the use of high visibility enforcement to analyze whether heavy presence of police would prevent unsafe driving habits. It was found that in the presence of police monitoring more regularly individuals increased their use of seatbelts by 3.5 percent. The continued presence of police vehicles was estimated to increase this number by another .75 percent in the upcoming year. The continued presence of police vehicles was estimated to also decrease other unsafe driving habits such as distracted driving or driving while drowsy. This study could be a strong backing for our support on the presence of police allowing for higher compliance rates with the move over and slow down laws. Thus, increased presence of such vehicles could increase the safety for those on the side of the road as well as emergency medical services.

Liu,Y. (2022). Multi-Camera Vehicle Tracking Based on Occlusion-aware and Inter-vehicle

Information. *The Computer Vision Foundation.* Retrieved from:

<https://openaccess.thecvf.com/content/CVPR2022W/AICity/papers/Liu_Multi->

Camera\_Vehicle\_Tracking\_Based\_on\_Occlusion-Aware\_and\_Inter-

Vehicle\_Information\_CVPRW\_2022\_paper.pdf

* The above study analyzed the frequent issues associated with the Multi-Target Multi-Camera Vehicle Tracking system at a city scale. It was noted that frequently these systems can have inaccuracies such as view variations, occlusions, and similar vehicles appearing too close to one another in frameworks. The frequent issues were to be dealt with via a MTMCT Framework that was based on occlusion-aware and inter vehicle information that can match vehicle tracking. Vehicle detection was conducted through a two stage method of SSD and YOLO. Vehicle reidentification would be used to reidentify cars that have been recorded on multiple cameras to gain a consistent flow of data.
* Single camera tracking could be divided by a tracking by detection paradigm while other networks work on the reidentification program. The study showed that the tracking features implemented proved to be successful in tracking vehicles through multiple frameworks.

Missouri Department of Elementary and Secondary Education. (2023). Driver’s education.

Accessed June 12, 2023.

* The above discusses the fact that although courses are available driver’s education is not a required course that must be completed before they are given their license. Since most SHSP include a large emphasis on education making this a requirement will spread awareness of Move over and Slow Down laws and thus increase compliance to these laws moving forward.

Topolsek,D., Babic,D., Fiolic,M. (2019). The Effect of Road Safety Education on the

Relationship Between Driver’s Errors, Violations and Accidents: Slovenian Case Study.

*European Transport Research Review.* Retrieved from:

<https://etrr.springeropen.com/articles/10.1186/s12544-019-0351-y>

* The above article took 183 participants and put them into two separate groups. The two groups were separated by those who had completed an educational training program for driving and those who did not complete the training. Each group was to fill out a Driver Behavior Questionnaire to identify the most common errors and violations. Between the two groups a statistically significant difference was found between those who underwent the program and those who did not.
* Confirmatory Factor Analysis was performed to test the fit of the initial derived model. This was also coupled with the maximum likelihood method to estimate all parameters of the model. The above study measured the effectiveness of driver educational programs and found a statistically significant impact but the true scope of this impact is still largely unknown. Although it is not certain the impact of these programs it has been shown that more factual based education to young drivers can reduce the amount of errors and violations later in life. This article can serve as a basis for legislation push within the state of Missouri as a backing for potential legislation to enhance compliance rates for the move over and slow down law of Missouri.

Nelson,J. Missouri Strategic Highway Safety Plan. *Missouri Department of Transportation.*

Retrieved from:

https://www.modot.org/sites/default/files/documents/Missouri%27s%20Strategic%20Hig

hway%20Safety%20Plan.pdf

* The above article is a regularly published plan by the Missouri Department of Transportation. The plan outlines the biggest issues to public safety and theorizes a plan for the upcoming years to minimize these issues. Each of these areas are assessed a team of experts is to develop a plan of action to assess the problem areas. The proposed strategies are required to be data driven and can take the form of education, enforcement, engineering, or alteration in policy.
* Areas proposed in the latest edition were consistent of the use of seat belts, distracted driving, speeding and aggressive driving, pedestrians, and drivers with elevated risks. The main strategies behind these areas of emphasis were the use of educational materials, enforcement (through fines), and policy change. Moving forward Missouri may want to consider the incorporation of knowledge of the move over and slow down law to ensure the safety of emergency service responders. This focus in the SHSP can lead to increase opportunity to spread educational awareness and thus increase the compliance rates to the move over and slow down law.

Missouri Department of Transportation. Missouri Move Over Law. Retrieved from:

<https://www.modot.org/missouris-move-over->

law#:~:text=Missouri's%20Move%20Over%20law%20requires,they%20pass%20the%20emergency%20vehicles. Accessed June 12, 2023.

-Missouri’s “Move Over” Law, RSM0 304.022 law requires that drivers must change their lane if it is safe to do so. If the conditions prevent the driver from doing so they are required to slow down as they pass. The law itself does not specific the number to which they slow down to but other states typically say 20mph or 20 percent of the speed limit. This source will serve as a basis for the legal scene in Kansas City.

GAO Highlights. (2020). Emergency Responder Safety; States and DOT are Implementing

Actions to Reduce Roadside Crashes. *GAO Highlights*. Retrieved from:

<https://www.gao.gov/assets/gao-21-166-highlights.pdf>. Accessed June 12, 2023.

* From the brief article above it was noted that in the year 2018 118 fatalities involving emergency service vehicles occurred. The coordination with stakeholders in various states could increase outreach to those who do not know about the law. This would be a significant area of impact since according to this article the biggest issue in compliance to this law is public awareness. This article gives us a simple and clear demographic to include in our article to demonstrate the proper driving moves to prevent such occurrences.

Geoly,M. (2023). Slow Down, Move Over: States Seek to Reduce Roadside Crashes. *National*

*Conference of State Legislatures. Retrieved from:*

*https://www.ncsl.org/transportation/slow-down-move-over-states-seek-to-reduce*

*-roadside-crashes*

* This article provides a fact that nearly 300 pedestrians are killed every year when they are off to the side of the road with their vehicles. This is noted to be a nearly 25 percent increase since 2014. According to the article every state has a variation of this law which requires the vehicles passing the car to either slow down, move to another land, or do both. All states were noted to implement a fine ranging anywhere from 30 to 2,500 dollars for the offense. This article will provide the study with a solid understanding as to how far and wide this form of law has been implemented.