

# 2019 UDOT RESEARCH PROBLEM STATEMENT

\*\*\* Problem statement deadline is Feb. 6, 2019. Submit statements to [UTRAC@utah.gov](mailto:UTRAC@utah.gov). \*\*\*

**Title:** National Practices for Setting Speed Limits - A Synthesis of Current Practice

**No. (Office Use):** 19.03.24

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Select **ONE** Subject Area  Materials/Pavements  Maintenance  Traffic Mgmt/Safety  Structures/Geotech  
 Planning  Perf Mgmt/Data Analytics  Public Transportation  Other

## 1. Describe the problem to be addressed:

In 2018 there were 264 lives lost on Utah roadways. Although this represents a 3.3% decrease in roadway fatalities from 2017, it is still far from the goal of ZERO fatalities across the state (1). Of the 264 lives lost, 15 were a result of drowsy driving, 17 from distracted driving, 19 from alcohol impairment, 50 from unrestrained drivers, and 82 from aggressive driving (67 of which involved speed). A 2013 Federal Highway Administration (FHWA) report noted that speeding is a factor in an estimated one-third of all fatal crashes according to the National Highway Traffic Safety Administration (NHTSA) (2). In order to minimize the number of crashes that involve speed, states must use great caution in the setting of speed limits. To assist states in setting speed limits, the FHWA has developed a web based tool designed to help practitioners set reasonable, safe, and consistent speed limits for specific segments of roads. This tool, called USLIMITS2, is applicable to all types of roads ranging from rural local roads and residential streets to urban freeways (3). Even with the USLIMITS2 program, there are questions that need to be answered regarding the setting of speed limits across the state. Some of these questions include: What are the best speed limits for urban vs. rural settings on state roadways? How much flexibility can UDOT have in areas where the state route is the end of the line? How can UDOT receive better feedback regarding speed limits? Should different speed limits be used during nighttime hours as opposed to daytime hours? What can be done to increase compliance? What other tools are available for use?

The purpose of this research project is to conduct a synthesis of practice regarding national practices for the setting of speed limits. This will include an evaluation of the tools available through the FHWA (2, 3), NHTSA (4), and other sources including research currently being conducted by the University of Utah on "Investigation of Utah Highway Speed Limit Compliance Rates and Evaluation of Speed Limit Design in Towns along Highways." The results of the synthesis will be utilized to compare the current practice in the state of Utah with the current practice across the nation. Following this assessment, limited recommendations can be made on how UDOT could make changes with regards to the guidelines for the setting of speed limits. The proper setting of speed limits is anticipated to contribute to UDOT's effort to reduce the total number of fatalities to less than 200 by 2020, and ultimately to achieve the goal of ZERO Fatalities across the state.

### References:

1. Zero Fatalities Utah. *2018 Fatality Statistics*. <[zerofatalitiesut.com/2018-fatality-statistics/](http://zerofatalitiesut.com/2018-fatality-statistics/)> (Accessed Jan. 26, 2019).
2. Warren, D., Xu, G., and Srinivasan, R. *Setting Speed Limits for Safety*. Report FHWA-HRT-13-006, Federal Highway Administration, Vol. 77, No. 2, 2013. <<https://www.fhwa.dot.gov/publications/publicroads/13sepoct/02.cfm>> (Accessed Jan. 26, 2019).
3. Federal Highway Administration (FHWA). *USLIMITS2*. <<https://safety.fhwa.dot.gov/uslimits/>> (Accessed Jan. 26, 2019).
4. National Highway Traffic Safety Administration (NHTSA). *Summary of State Speed Laws, Twelfth Edition, Current as of October 8, 2012*. Report DOT HS 811 769, Federal Highway Administration (FHWA), 2013.

## 2. Write the project objective (25 words or less):

Complete a synthesis of practice on the national policies related to the setting of speed limits with limited recommendations on how Utah can modify current practice for speed limits.

## 3. Explain why this research is important:

(In response, consider addressing specific UDOT goals, applicability in Utah or other states, etc.)

UDOT will benefit from this project through a better understanding of the tools and guidelines available for the setting of speed limits throughout the state. This would include guidelines on interstates, state routes in small communities, nighttime speed limits, compliance, and so forth.

**4. List the major tasks:**

1. Kickoff meeting to develop a project scope of work and detailed cost estimate.
2. Perform a literature review on the state of the practice for setting speed limits.
3. Summarize synthesis of practice results and identify states (or other locations) wherein speed limits have been effectively managed and adapted.
4. Interview officials in those states identified in Task 3 to better understand the process behind the setting of speed limits and the benefits that have been found through this practice.
5. Make limited recommendations on changes to current guidelines in Utah.
6. Report the results to UDOT in the form of a written report.

**5. List the expected deliverables (reports, manual, specification, design method, training, etc.):**

1. Technical report documenting the research results.
2. A synthesis of practice for the setting of speed limits.
3. A list of limited recommendations on how the state of Utah could improve current practices.

**6. Describe how the research results will be implemented:**

**(In response, consider addressing UDOT leader support, process or standard improvement, etc.)**

This is research targeted at improving the setting of speed limits across the state in an effort to improve safety and operations. The results of this research would be implemented through the Traffic & Safety Division as well as the Traffic Management Division to identify ways to improve speed limits.

**7. Requested from UDOT: \$40,000  
(or UTA for Public Transportation)**

**Other/Matching Funds: \$**

**Total Cost: \$40,000**

**8. Outline the proposed schedule, including start and major event dates:**

It is recommended that this project begin in late summer or early Fall 2019 with the initial tasks of the project scope of work and detailed estimate, followed with the remaining tasks as outlined. It is anticipated that the project would take 14-16 months, including 2-month final report review period.