

2019 UDOT RESEARCH PROBLEM STATEMENT

*** Problem statement deadline is Feb. 6, 2019. Submit statements to UTRAC@utah.gov. ***

Title: Gauging the Effectiveness of Safe Routes to School Projects

No. (Office Use): 19.03.14

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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:

The Utah Department of Transportation is responsible for administering the Safe Routes to School Funding Program. Local agencies are encouraged to develop proposals and submit applications for infrastructure projects that they believe will help more school children walk and bike safely to school. Eligible infrastructure projects include: bike parking facilities, sign installments, on-street bike facilities, off-street bike/pedestrian facilities, crossing improvements, street striping, signals, signage, traffic calming devices, and sidewalk. The proposed improvements should fill in gaps currently identified as necessary updates on the school's Student Neighborhood Access Plan (SNAP) map, and project budgets typically range between \$50,000 and \$200,000. A second program that provides funding for much needed pedestrian infrastructure projects is the Safe Sidewalk Program. The Safe Sidewalks Program provides a legislative funding source for construction of new sidewalks adjacent to state routes where sidewalks do not currently exist and where major construction or reconstruction of the route, at that location, is not planned for ten or more years.

Over the past decade, hundreds of projects have been funded through these programs, however, there is currently no mechanism in place to determine how effective these projects have been at promoting safety, because once a project is funded and constructed no follow-up evaluation is conducted. For a location to be eligible, it must be located adjacent to a state highway, be located in an urban area or an area where the immediate environment of the project is urban in nature, must have significant pedestrian traffic, and have a guaranteed 25% local government match.

This project will review projects funded under the Safe Routes to School program and the Safe Sidewalks Program over the past 5 years and conduct an evaluation of how effective the projects have been at promoting student safety and safe school transportation. This analysis will then be evaluated to determine which project types provide the highest safety return on investment.

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

Evaluate past Safe Routes to School projects to determine which project types are the most effective at promoting safety.

3. Explain why this research is important:

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

This research will help UDOT Traffic and Safety determine which project types are the most likely to positively improve safety for school travel. This information can be used to improve the funding application process and to streamline funding to projects which will provide the greatest return on investment.

4. List the major tasks:

1. Meet with the technical advisory committee to refine the scope, timeline, and deliverables of this research.
2. Compile an inventory of projects funded through Safe Routes to School and the Safe Sidewalks program
3. Compile roadway safety data for a ¼ mile buffer surrounding all locations within the sample
4. Contact each school impacted by the project and compile follow-up data using a standardized survey form that will be identical for all sites

- 5. Evaluate all projects against existing safety data to determine which projects or project characteristics have been the most successful at improving safety
- 6. Provide a discussion of findings, outline recommendations for implementation in the funding decision making process.
- 7. Prepare a final report, presentation, and recorded webinar summarizing the project

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

- 1. Prepare a final report, presentation, and recorded webinar summarizing the project
- 2. Paper submitted for presentation to the Transportation Research Board annual meeting as well as other appropriate venues
- 3. Paper submitted to a journal for publication summarizing the research methods, analysis and findings.

**6. Describe how the research results will be implemented:
(In response, consider addressing UDOT leader support, process or standard improvement, etc.)**

UDOT Traffic and Safety will incorporate the findings of this research into their SRTS application evaluation process and scoring rubric to refine their selection process and select the most beneficial projects for future funding.

**7. Requested from UDOT: \$33,500 Other/Matching Funds: \$ Total Cost: \$33,500
(or UTA for Public Transportation)**

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

