



# Research In Progress

## SBIR Research and Development of Pedestrian Exposure Measurement Technology

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The current lack of exposure data makes it extremely difficult to understand changes in pedestrian crash rates. These changes could be due to simple increases or decreases in exposure or to a myriad other factors (changes in congestion, infrastructure, or age of pedestrians). The inability to clearly separate out the relevant factors contributing to pedestrian fatalities inhibits our ability to design effective countermeasure programs to reduce pedestrian crashes.

Pedestrian exposure is difficult to capture because it can be defined in a number of ways. For instance, exposure can be defined as number of streets crossed, time spent walking near streets, or distance traveled near streets. There is also controversy over what type of trip should be counted. Exposure can include walking to a mailbox, walking in a parking lot, a walking trip that begins and ends at the same location, etc. In addition, one may want to measure walking, but that may not provide exposure to traffic and consequently risk of a crash. In order to understand pedestrian crash risk, exposure will be defined as any situation in which a pedestrian is at risk for being hit by a vehicle on public roads (fatalities included in NHTSA's Fatality Analysis Report System only include crashes that occur on public roads). The goal of this study is to develop the technology to estimate pedestrian exposure.

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<b>Contractor:</b>	Calspan Corporation, P.O. Box 400, Buffalo, NY 14225
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