Effectiveness of Radar Speed Signs in a University Environment (Michael Williamson, PhD candidate; Ryan Fries, PhD – Southern Illinois University Edwardsville)

Vehicular speeds are of particular interest in areas with a high number of pedestrians. This study investigates the effect of a radar speed sign placed for an extended period of time in an area known to be troublesome in regards to speed violations and frequented by law enforcement. Speeds were recorded at a point where drivers could first read the radar speed sign display and when they passed the display, allowing drivers ample time and distance to decelerate to the posted speed. Two groups were compared using statistical testing and conclusions drawn on the effect of radar speed signs on driver behavior. A total of 820 driver speed samples were recorded during the morning, midday, evening and off peak times. Overall the results indicated that drivers traveling above the posted speed limit of 25 mph decreased their speed upon seeing the radar speed sign display indicating they were violating the speed limit and maintained a reduced speed thru the study area. On the contrary, drivers that were traveling at or below the posted speed limit of 25 mph, increased their speed after confirming the absence of law enforcement in the area. These results suggest that drivers fit into two groups the first is self-correcting when notified of a speed violation, and the second group disregards the speed limit with the absence of law enforcement. The results from this study would be useful to safety engineers, for the purpose of understanding driver behavior in a university environment.