

Effectiveness of Radar Speed Signs

The radar speed sign is formally called a Dynamic Speed Monitoring Display (DSMD) or Dynamic Speed Feedback Sign (DSFS). There are different types of DSMD, portable chargeable message signs (PCMS), speed monitoring displays (SMD), and speed display tailers (SDT). They are either trailer based/portable or are permanent/mounted. A DSMD sign in combination with a regulatory speed sign provides direct and relevant information to the motorist using the roadway. It is considered a "feedback loop", a very effective way of permitting human beings to measure performance against a benchmark by displaying performance (Veneziano). The NHTSA states that DSMD are effective but as soon as they are removed, the speeds rebound quickly. Therefore, permanent signs are more effective. One concern with these signs is that the excessive use of signs could lead motorists to disregard the signage in the long term. The cost for a DSMD is around \$10,000 per sign (*Dynamic Speed Display/ Feedback Signs*). Many studies on DSMD effectiveness show that they are effective over a long period of time.

The location we collected data was walking distance from campus. The study from the University of Southern Illinois Edwardsville is different from others because it focuses on the radar speed signs near college campuses, making it relevant to the analysis we created. This study lists 3 factors that make university roads different from others, driver familiarity, demographics, and prevalence of pedestrians. The driver familiarity is interesting because as a group we collected the license plate state. There were many Illinois license plates and those were the cars that were speeding the most. Demographics are different based on the time of day. The

biggest point here is that during the afternoon it is usually not students speeding. It is people who are in the workforce and driving through or around campus to get to work or home. The prevalence of pedestrians is not relevant to our study because there was not a pedestrian walkway, and we did not see any pedestrians when collecting our data at the designated location. The results of the University of Southern Illinois Edwardsville study show that the radar speed signs are most effective in the PM. This was the most beneficial finding of the study. I can believe this as students are leaving classes and nonstudents in the workforce are leaving work and going home.

The effectiveness of the radar speed signs is proved by the fact, “85.6% of the drivers that were exceeding the speed limit reduced their speed when warned of a violation with the radar speed display sign” (Williamson). When sitting at the data collection location, cars would slow down when the radar sign blinked at them. Radar speed signs have been consistently shown to reduce speed. They are most effective when they are permanent, in the PM and along curves, school zones, parks, and residential areas. The placement of the radar speed sign our class collected data at is effective because it is in a residential area and by a school. Having one closer to Augustana’s campus could be helpful. The radar speed sign we collected data at is not necessarily slowing speed down on campus.

References

Dynamic speed display/feedback signs. NHTSA. (2023).

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