

Title of Intervention: Driver Behavior at Railroad Grade Crossings

Intervention Strategies: Environments and Policies

Purpose of the Intervention: To decrease unsafe railroad crossing

Population: Drivers approaching a rail grade crossing during the signaling of an approaching train

Setting: Rural road in Muncie, Indiana; community-based

Partners: None mentioned

Intervention Description:

- Environments and Policies: Warning flashers and a bell were installed at a railroad-highway grade crossing to signal an approaching train. Half-barrier gates were added to the pre-existing system of flashers and a warning bell.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Not mentioned
- Training: Not mentioned
- Technology: Not mentioned
- Space: Not mentioned
- Budget: Not mentioned
- Intervention: Flashers, warning bell, half-barrier gates
- Evaluation: Observers, observer vehicle, stopwatch, statistical software

Evaluation:

- Design: Comparison
- Methods and Measures: Observations of the time at which the vehicle stopped at the approach to the crossing, the time of vehicle crossing, train arrival time and vehicle type as well as whether those vehicles not stopping appeared to have slowed perceptibly as they approached.

Outcomes:

- Short Term Impact: Not measured
- Long Term Impact: Drivers crossing around barrier gates tended to stop or slow down on approach significantly less than those crossing with flashers only. The likelihood of crossing the railroad reduced when the time until the train arrival decreased and the distance of the train from the crossing area decreased.

Maintenance: Not mentioned

Lessons Learned: Discouraging drivers from driving around barrier gates was seen as essential if safety at these crossings was to be improved. Extending the length of gates and the education of drivers regarding the law were seen as possible ways to increase compliance.

Citation(s):

Meeker, F. L. and R. A. Barr (1989). "An observational study of driver behavior at a protected railroad grade crossing as trains approach." *Accid Anal Prev* 21(3): 255-62.

Meeker, F., D. Fox, et al. (1997). "A comparison of driver " *Accid Anal Prev* 29(1): 11-6.