

A REVIEW AND MULTI-SITE EXAMINATION OF THE SPILLOVER EFFECT OF SPEED LIMIT CHANGES TO ADJACENT ROADS

INTRODUCTION

Posted speed limits seek to ensure safe mobility for all road users. It is important to understand the impact on driving speeds and safety of changes to speed limits. Many studies have examined the impact of changes to speed limits on the specific roads where the speed limits were changed. The impacts, however, may propagate beyond the roadway where the limit is changed, because of drivers' tendency to maintain their speeds even after exiting the highway and merging onto adjacent roads. This effect may be especially important to consider adjacent roads susceptible to any possible spillover effects carry high traffic volumes as well as vulnerable road users such as pedestrians and cyclists. The AAA Foundation for Traffic Safety is working to understand the extent to which changes in speed limits may spill over to other adjacent roads.

PROJECT GOAL AND PLAN

The purpose of this study is to examine whether and to what extent changes in speed limits on a given road may have spillover effects on travel speeds and crash rates or crash severity on other adjacent roads. The study consists of two main tasks.

The study will conduct a comprehensive literature review on the spillover effect to synthesize the aspects of past research including characteristics of study sites, types of measures used, other countermeasures implemented, and their findings with respect to the presence and magnitude of any spillover effect.

The study will conduct a before-and-after analysis to examine the spillover effects on several locations. Sites of recent speed limit changes will be selected, and measures of safety performance including crash density and crash rate will be examined on adjacent roads before and after the change in speed limit.

Project Team

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