

TRAFFIC TECH

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Gainesville, Florida Increases Pedestrian Safety by Implementing Year-Long Program

In large cities, pedestrians account for 40% to 50% of traffic fatalities. In 2011, there were 4,432 pedestrian fatalities and about 69,000 injuries in the United States (NHTSA, 2013). Many of these incidents occur at crosswalks where drivers fail to comply with pedestrian crossing laws. One way of increasing driver compliance is to apply NHTSA's high-visibility enforcement model (*Click It or Ticket*) to pedestrian right-of-way laws.

Program

Gainesville, Florida conducted four waves of high-visibility enforcement of pedestrian yield right-of-way laws over the course of 1 year. The waves were conducted in February, May, July, and November, and were supported by paid radio ads, earned media, public outreach to schools and communities, street signage, and feedback signs. Before the enforcement began, Gainesville refreshed, as needed, pedestrian advance crossing markings at 12 test and comparison sites. The Pedestrian Safety Program was a joint enforcement effort by the Gainesville Police Department, the University of Florida Police Department, and the Alachua County Sheriff's Office, whose officers issued 182, 153, and 66 failure-to-yield citations to drivers during waves 2, 3, and 4, respectively. During the first wave in February, officers only issued warnings (1,177) except to flagrant violators, along with flyers that explained the law and announced future enforcement efforts. Officers used portable "Pedestrian Law Enforcement Operation" signs placed after (downstream) each enforcement wave to increase passing motorists' awareness of the program at the time of the enforcement.

The Gainesville Police Department ran radio ads and put out flyers that explained Florida's law, proper yielding behavior of drivers, proper crossing behavior of pedestrians, and asked drivers to be good role models. School flyers went out to parents at all the elementary schools in Gainesville. The University of Florida ran information in the school newspaper and on the university's Web site. During the last 9 months of the program, feedback signs along high traffic roads displayed the past week's yielding percentage and the record to date.



For measurement purposes, the city selected 12 crosswalks with high pedestrian crossings, and randomly assigned 6 sites to the treatment condition and 6 sites to the control condition where program activities did not occur. Officers conducted pedestrian decoy operations, where a plainclothes officer stepped into a cross-



walk in advance of an approaching vehicle that had ample time to come to a safe stop (as defined by a precise dilemma zone).

Drivers Double the Amount of Yielding to Pedestrians

There were 20 staged crossings, and as many unstaged crossings as occurred naturally two or three times per week at each of the 12 sites for the duration of the study. At both treated and untreated sites, yielding right-of-way following the HVE pedestrian operations increased and continued to climb with each successive enforcement wave. At the treated sites, yielding for staged crossings averaged 32% during baseline and 62% by the end of the study.

Figure 1: Mean Percentage of Drivers Yielding to Pedestrians At Enforcement Sites During Each Condition of the Program

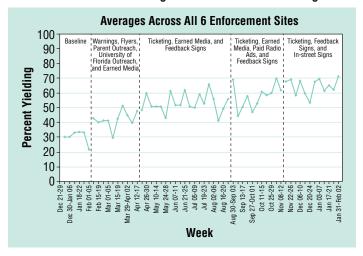
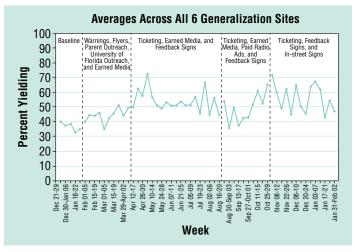


Figure 2: Mean Percentage of Drivers Yielding to Pedestrians at The Generalization Sites During Each Condition of the Program



At the untreated generalization sites, yielding for staged crossings sites averaged 37% during baseline and 59% by the end of the study. There was statistically higher yielding for unstaged pedestrian crossings than for staged crossings at all but one site that started with very high baseline yielding. Yielding for unstaged crossing averaged 45% during baseline and 83% at the end of the study.

One possible explanation for this finding is that pedestrians may cross more assertively when crossing in the unstaged or natural situation than pedestrians who were staging the crossing.

Discussion

Drivers who receive citations are aware of the program, but the intent of an HVE operation is to persuade another 1,000 drivers or so of the increased risk of getting a citation for each ticketed driver. Encouraging compliance with the pedestrian crossing laws increases the safety of pedestrians. One way to achieve this is to make sure that drivers who pass a stopped vehicle know that the stop is for a pedestrian crossing violation. Gainesville selected busy streets for the operations where officers could make numerous stops and used portable message signs to alert passing drivers about the stop. Widely publicizing that police are enforcing pedestrian right-of-way at crosswalks can increase the perception of enforcement. Community feedback signs placed on busy Gainesville streets conveyed the message that yielding to pedestrians is an important safety issue. Updating the percentages weekly showing how many drivers properly yielded conveyed the message that Gainesville drivers were improving, but had not reached 100 percent compliance yet.

High-visibility enforcement led to a slow and steady increase in the percentage of drivers yielding right-of-way to pedestrians over the course of the year. Yielding began to increase during the first wave when officers issued mainly warnings and handed out flyers announcing upcoming enforcement efforts. Yielding increased more when officers issued citations. Yielding increased again when Gainesville added paid ads, in-street signs, and feedback signs. Yielding also increased steadily at comparison sites, showing that the program generalized to other crosswalks. There was more yielding at comparison sites that were closer to the treated crosswalks. The steady increase in yielding behavior across treated and untreated sites suggests a sustained change in driving culture.

Download *High-Visibility Enforcement with Driver Compliance to Pedestrian Right-of-Way Laws* (34 pages plus appendices), prepared by Western Michigan University, from http://www.nhtsa.gov/staticfiles/nti/pdf/811786.pdf.



U.S. Department of Transportation

National Highway Traffic Safety

Administration

1200 New Jersey Avenue SE., NTI-132 Washington, DC 20590

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