

April 2024

RESEARCH PROJECT TITLE

Unticketing: An Upside-Down Approach to Speed Compliance

SPONSORS

Iowa Highway Research Board
(IHRB Project TR-759)
Iowa Department of Transportation
(InTrans Project 18-668)

AUTHORS

John W. Shaw, Iowa State University
(orcid.org/0000-0002-4631-6065)

Theresa Litteral, Iowa State University
(orcid.org/0000-0003-4978-6430)

MORE INFORMATION

intrans.iastate.edu

**Institute for Transportation
Iowa State University
2711 S. Loop Drive, Suite 4700
Ames, IA 50010-8664
515-294-8103**

The mission of the Institute for Transportation (InTrans) at Iowa State University is to save lives and improve economic vitality through discovery, research innovation, outreach, and the implementation of bold ideas.

The sponsors of this research are not responsible for the accuracy of the information presented herein. The conclusions expressed in this publication are not necessarily those of the sponsors.

While conventional approaches to achieving compliance with traffic laws are almost always punitive, incentives can also encourage motorists to practice safe driving.

Objective

This brief guide offers advice for Iowa communities seeking to implement an “unticketing” program similar to Unticketing Cerro Gordo, a traffic safety campaign conducted in summer 2023 in Cerro Gordo County, Iowa. The campaign centered on a contest that incentivized safe driving behavior by awarding small prizes to drivers who opted into the contest and complied with local speed limits.

Drawing from the Cerro Gordo County experience, the guide outlines unticketing campaign design, site selection and characteristics, outreach and marketing, identification of compliant drivers, solicitation and distribution of prizes, and effectiveness monitoring methods.

Background

Conventional approaches to achieving compliance with speed limits and other traffic laws have almost always been punitive: violators are intercepted and penalized through fines or other sanctions.

While intensive traffic enforcement can increase compliance if drivers perceive law enforcement to be present, agencies cannot sustain high levels of enforcement over time. Moreover, enforcement can heighten tensions between agencies and communities, while traffic stops expose officers to passing traffic or potentially hostile reactions from drivers. Drivers, meanwhile, often perceive traffic stops as stressful, time-consuming, and inherently punitive.

Research and practical experience have shown that incentives can motivate human behavior as much as penalties. The 2014 report *Toward Zero Deaths: A National Strategy on Highway Safety* suggests that, where feasible, positive approaches to safety improvement are more likely to be accepted than negative or punitive approaches.



Neal Hawkins, Institute for Transportation at Iowa State University

Traffic stop

Apart from campaigns to increase seatbelt use in the 1980s and 1990s and a small-scale promotional event in Sweden sponsored by Volkswagen in 2010, the use of incentives has seldom been applied to traffic management.

The Cerro Gordo County Experience

The following summary of tasks involved in the Unticketing Cerro Gordo demonstration project can provide guidance for Iowa communities seeking to implement their own unticketing programs.

Conducted in collaboration with three local law enforcement agencies, Unticketing Cerro Gordo sought to incentivize speed limit compliance in Cerro Gordo County, Iowa, through a contest that rewarded compliant drivers with the opportunity to win small prizes donated by local merchants. The contest was held from late May through mid-August 2023.

The primary goal of the demonstration project was to explore whether compliance with traffic laws can be improved by incentivizing safe driving behavior while leaving in place all existing sanctions against unsafe driving behavior.

Unticketing Campaign Design

Four factors were important in the design of Unticketing Cerro Gordo:

- Maximize the effectiveness of the project in improving compliance with traffic laws
- Minimize the implementation burdens for the partner law enforcement agencies
- Support positive relationships between law enforcement and the community
- Execute the project within funding constraints

Ten main activities were undertaken to implement Unticketing Cerro Gordo:

Preparation

1. Recruit partner law enforcement agencies
2. Select a site
3. Develop outreach materials to promote the contest and recruit contestants
4. Solicit prize donations from local businesses

Implementation

5. Create an electronic database to record the license plate numbers of compliant drivers
6. Collect plate numbers for compliant drivers as part of routine traffic enforcement
7. Match the license plate numbers of compliant drivers with those of contestants
8. Award prizes to contestants based on compliance with traffic laws

Effectiveness Measurement and Monitoring

9. Survey road users in the area about traffic safety attitudes before and after the contest
10. Conduct spot traffic speed studies before, during, and after the contest

Site Selection and Characteristics

The demonstration project's technical advisory committee recommended Cerro Gordo County, Iowa, as the demonstration site. The county's population in July 2022 was 42,409, of which 7,529 reside in Clear Lake and 26,924 reside in Mason City. The area also attracts a substantial number of summer visitors drawn by local attractions such as Clear Lake State Park.

All three law enforcement agencies in the county—the Clear Lake Police Department, Mason City Police Department, and Cerro Gordo Sheriff's Office—agreed to participate in the project. A key objective for these agencies was to reduce speeding and other traffic violations during the tourism season and to strengthen relationships with the community.

Outreach and Marketing

Contest activities were publicized through press releases sent to and used by local print and broadcast media, the social media feeds of the three participating law enforcement agencies, and the Unticketing Cerro Gordo website (<http://www.unticketing.org/>). A postcard-sized flyer was also prepared and distributed at pre-contest meetings and events and through government offices and local businesses.



Unticketing Cerro Gordo flyer

Identification of Compliant Drivers

To avoid privacy concerns, drivers were required to opt into the contest. Opt-ins were solicited through project outreach materials and the campaign website, which included an online opt-in form where interested drivers could provide their license plate number, vehicle description, and contact details.

As part of their routine traffic patrols, the three participating law enforcement agencies gathered the license plate numbers of vehicles observed to be in good compliance with traffic safety laws. A secure online form, accessible through the county's computer-aided dispatch system, was used to record observations of compliant drivers directly from law enforcement vehicles in the field.

Concurrently, these patrols also warned or ticketed violators in accordance with pre-existing agency practices. The combination of incentives and penalties created a carrot-and-stick situation without adding much extra workload for the front-line officers and deputy sheriffs.

To avoid the need to intercept compliant drivers, the plate numbers identified by law enforcement were cross-tabulated with the plate numbers of drivers who had opted into the contest. Prizes were later distributed by mail or picked up at the Mason City police station.

Solicitation and Distribution of Prizes

Local merchants were solicited to donate the prizes awarded to contestants. Prizes ranged in value from \$10 to \$35 and included gift cards donated by local shops, roadside troubleshooting kits donated by a statewide motor club, and a kit of car washing supplies donated by a local auto parts store.

Prize drawings were held every two weeks from late May through mid-August, for a total of six drawings. For each drawing, three prizes were awarded to contestants whose plate numbers matched those of compliant drivers observed by law enforcement over the preceding two weeks. Prize recipients were flagged to avoid issuing more than one prize to the same driver.

If fewer than three matches were identified for the drawing, additional winners were selected at random from among the contestants. If more than three matches were identified in the same two-week period, three winners were selected at random from among the matches, and the remaining names were held in reserve for future drawings.

All prizes were sent by mail to the addresses provided by the contestants or were picked up at the Mason City police station.

Effectiveness Monitoring Methods and Results

Two methods—spot traffic speed studies and surveys of area residents or visitors—were used to assess the effects of the contest on road user behavior.

Speed studies were conducted at five sites in Clear Lake and Mason City before, during, and after the contest. Speed data were collected using a handheld radar gun, with 20 to 30 minutes of data manually recorded at each location on each data collection day.

Online surveys were conducted before and after the contest to identify changes in drivers' attitudes toward road safety. Participants were recruited through social media sites maintained by participating law enforcement agencies and through Iowa State University email lists and were required to be over 18 years old, hold a learner's permit or driver's license, and reside or spend time in the area.

Based on these evaluation methods, the contest produced modest (though not statistically significant) or inconsistent reductions in traffic speeds and appeared to increase positive attitudes toward road safety.

Implementation Challenges and Benefits

Iowa communities seeking to implement their own unticketing program should note some issues encountered during the Unticketing Cerro Gordo demonstration project:

1. The deployment of an automatic license plate reader system in Mason City that was initially expected to come online by late May was delayed. This system would have automated the collection of compliant driver observations and traffic speeds and greatly increased the number of observations available for the contest.
2. While law enforcement agencies substituted manual observations, two of the three participating law enforcement agencies were experiencing staffing shortages and were not able to collect as many compliant driver observations as originally anticipated. The lack of observations may have affected the extent of the observed speed reductions and attitudinal changes.

Despite these challenges, Unticketing Cerro Gordo was executed successfully. In addition to the modest speed reductions and increased positive attitudes toward road safety, the marketing and outreach efforts for the contest generated a steady stream of positive publicity for the participating law enforcement agencies and prize donors throughout the summer tourism season.

Within individual communities, the contest could potentially be made an annual event, allowing the implementing agencies to build up community awareness of the contest over a period of several years along with a stable base of contestants, prize donors, and media contacts.