New research suggests that red light cameras help to reduce the number of crashes at intersections where they are installed. The study, although limited to Texas, is one of the most extensive thus far in the nation, and researchers say the findings demonstrate that the automated enforcement method offers an effective means of preventing crash-related deaths and injuries.

The analysis, which was limited to the safety aspects of red light camera use, was conducted by the Center for Transportation Safety at the Texas Transportation Institute (TTI). Researchers examined more than 11,000 crash records at the 275 intersections statewide where cameras were in place, and compared crash frequencies one, two and three years before and after installation of the cameras.

An overall reduction of 633 crashes recorded at those intersections represents an 11 percent decline statewide. Red-light-related crashes dropped by 25 percent, and right-angle crashes (the most severe type) dropped by 32 percent. The reductions were seen across the board on all types of roadways, including business/primary roads, farm-to-market roads, interstate access roads, state highways and U.S. highways.

CONTINUED ON NEXT PAGE
TTI study underscores safety benefits of red light cameras

In addition to assessing the cameras’ effectiveness according to roadway type, researchers also compared crash frequencies at different intervals before and after cameras were installed. The examination showed a 23 percent drop from one year before to one year after cameras were put into use. The two- and three-year comparisons reflected reductions of 27 percent and 21 percent, respectively.

“These findings show clearly that red light cameras offer significant safety benefits,” says Troy Walden, the author of the TTI study. “Most important, they help prevent the most severe and deadly type of intersection crashes.”

According to federal sources, red light running causes more than 100,000 crashes and 1,000 fatalities every year, and right-angle crashes account for 46 percent of all intersection-related collisions.

TTI is a member of The Texas A&M University System. TTI conducts applied research in all modes of transportation with a goal of saving lives, time and resources.

The full report can be found at Evaluation of Photographic Traffic Signal Enforcement Systems in Texas (http://tti-tam.us/rkAC2p)

By the numbers...

23 percent reduction in crashes one year after installation of red light cameras

27 percent reduction in crashes two years after installation

21 percent reduction in crashes three years after installation

32 percent overall reduction in right-angle crashes
Envisioning a traffic safety culture
Guest editorial from Dr. Bella Dinh-Zarr,
Safety Director of the FIA Foundation

Vehicles are more protective than ever before. The roadway environment is far more forgiving. Traffic laws have evolved and become more effective over time.

By almost any measure, roadway safety has advanced remarkably in a relatively short time, but engineering and enforcement will take us only part of the way. To move forward, meaningful safety improvements will rely heavily upon change — a fundamental change in how we think about driving. Imagine for just a moment what that might look like: a world in which drivers value civility over convenience, one in which driving and safe driving are synonymous and universally valued.

For far too long, our society has adopted a “do as I say, not as I do” attitude behind the wheel. Altering such entrenched beliefs will be neither swift nor simple, but it is essential and achievable. The Toward Zero Deaths initiative, led by the American Association of State Highway and Transportation Officials, and related safety culture work led by the AAA Foundation for Traffic Safety are tangible examples that we are taking steps in the right direction — steps toward a true safety culture.

We took a very big step in May, when I was honored to help launch the United Nations Decade of Action for Road Safety 2011–2020, which took place in 110 countries. This was the first time that traffic safety has been recognized on the scale of other killers such as TB, malaria and HIV/AIDS. In fact, in 20 years, more people will die per year on the world’s roads than will die of HIV/AIDS.

Led by the World Health Organization and the FIA Foundation, the Decade of Action aims to reduce road deaths and injuries globally. The key pillars of the Decade of Action address all aspects of road safety, including infrastructure, safety management capacity, vehicles and post-crash care. In addition, one pillar focuses on enhancing road-user behavior, and our success will depend largely on a change in traffic safety culture — the collective values and beliefs that influence our behavior.

I think it’s a fitting coincidence that, as we begin our Decade of Action, the Texas Transportation Institute (TTI) is completing an impressive decade of its own. In 2001, the Texas Legislature created the Center for Transportation Safety at TTI, with a charge to “conduct programs of research, education and technology transfer to support the state’s role in improving the safety of the roadways in this state.”

In the ten years since, TTI has done just that, building upon its remarkable record in the engineering aspects of safety and bringing a new focus and understanding to the policy and behavioral aspects of the field.

The knowledge gained through such research is essential to any further improvements in roadway safety. That’s why I believe that TTI is uniquely positioned to support the advancement of a traffic safety culture in our nation and worldwide, and why I am so delighted to count the agency as a partner in the U.N. Decade of Action for Road Safety.

Dr. T. Bella Dinh-Zarr is the North American director of the Make Roads Safe Campaign for Global Road Safety and the director of Road Safety at the FIA Foundation. She was also a research associate at TTI from 1997 to 2000.
CTS marks first decade
Legislature created Center in 2001 to address urgent needs

Of all the research that is done at the Texas Transportation Institute (TTI), perhaps none has a more personal relevance and value to the average road user than the work of the Center for Transportation Safety (CTS).

September 2011 marks 10 years since the Center opened its doors. In that time, CTS staff members have made a meaningful impact on traffic safety in Texas with studies, research, public outreach and data analysis.

“The work done by the Center for Transportation Safety over the past decade is saving lives — there’s no question about that,” said State Senator Steve Ogden, who authored the legislation that created the Center. “It’s difficult for me to think of another investment of taxpayer dollars that has paid off better than our investment in roadway safety research. My hat is off to the Center’s talented and dedicated staff.”

Senator Ogden recognized the urgent need for improved roadway safety in Texas, pointing out in the bill that “there were no days in 1998 or 1999 during which there were no deaths on Texas highways.”

The mission of the Center, as set out in statute, is to serve as a focal point for traffic safety research, policy analysis, education and outreach in Texas. This is done by:

- Educating — providing students hands-on training and guidance in transportation safety and safety-related research;
- Collaborating — promoting the collaboration of professionals from different disciplines in the cause of transportation safety;
- Analyzing — conducting research to reduce the deaths and injuries associated with transportation in all its modes;
- Evaluating — assessing the effectiveness of different plans, programs and policies that have been implemented to reduce transportation-related deaths and injuries;
- Sharing — providing safety information to other professionals and the public; and
- Distributing — serving as a resource to the Legislature and various state agencies by developing new plans, programs and policies that have the potential to reduce transportation-related deaths and injuries in Texas.

In the past 10 years, the Center has used its original $500,000 in state-appropriated funds to help secure other research contracts, to bring its annual funding up to more than $5 million.

The impact of the Center’s reach does not stop at research — numerous Center researchers have given invited testimony to House and Senate committees to help legislators improve public policy related to transportation safety.

The Center has grown considerably since its inception. In 2001, the Center employed eight people; in 2011 more than 55 individuals are working on projects to improve the road safety for Texans.

“We’ve come a long way in 10 years, but we still have a long way to go,” says CTS Director John Mounce. “Transportation safety affects everyone, whether you drive or not.”

For more information on the Center’s mission and projects, visit the Center for Transportation website (http://tti.tamu.edu/cts).

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“Gathering information, observing, and analyzing human behavior is the foundation of assessing, understanding, and then improving the traffic safety system in which humans are involved.”
Katie Womack, Program Manager of the Behavioral Research Group

“As alcohol abuse continues to be a major traffic safety problem, research and education in this area is vital to reduce traffic crashes.”
Dr. Maury Dennis, Center for Alcohol and Drug Evaluation Studies

“Analyzing crashes allows us to look at the when, where, how and why they occur so that we can identify ways to prevent Texans from dying or being injured on our roadways. The key to implementing successful countermeasures is understanding the specifics of the problem, and that is what crash analysis is really about.”
Dr. Troy Walden, Program Manager of the Crash Analysis Group

“The human factors program helps design and evaluate the interface between drivers and the roadway, through research on traffic control devices and in-vehicle technologies.”
Dr. Sue Chrysler, Program Manager of the Human Factors Group

“Drivers who are impaired by alcohol and/or drugs kill too many people on Texas roadways. Although it is a difficult problem to address, impaired driving demands our attention and resources in order to save lives. Research and program activities conducted by the Center for Transportation Safety directly address the problem of impaired driving.”
Dr. Melissa Walden, Program Manager of the Planning and Evaluation Group

“Car crashes are, by far, the leading cause of injury and death for young people in the United States, as well as every developed nation on planet earth. Everything we do is geared toward changing that fact.”
Russell Henk, Program Manager of the Teen Driver Safety Group
Teens in the Driver Seat receives ITE award

Texas Transportation Institute’s (TTI) Teens in the Driver Seat® (TDS) is the recipient of the 2011 Transportation Achievement Award in Safety by the Institute of Transportation Engineers (ITE). TDS Program Director Russell Henk was presented the award at the ITE Annual Meeting in St. Louis August 15. This is the second time that ITE has awarded TDS with the achievement award. The first time was in 2007.

TDS is the nation’s first peer-to-peer program focusing solely on teen driver safety. Its goal is to prevent crashes by raising awareness of the top driving dangers for young drivers, and supporting teens’ efforts to develop and deliver safety messages to their peers. Student teams at more than 500 Texas schools have started Teens in the Driver Seat programs, reaching more than half a million of their peers with safe driving messages. Other states, including Connecticut, Georgia, North Carolina and California, are now implementing TDS programs.

“Most young drivers don’t know that they’re many times more likely to die in a crash than people in other age groups,” Henk says. “This award signifies the importance of what TDS is all about — saving lives. It’s working, and we are all extremely proud and honored by the recognition the program is receiving.”

To see other TDS awards, visit http://www.t-driver.com/about/award/.

$100,000 State Farm grant to TDS program highlights deadliest crash month for teens

State Farm has awarded a $100,000 grant to Teens in the Driver Seat® (TDS), making the company the largest corporate sponsor of the growing peer-based safety program for young drivers. The funding will go toward supporting the program in Texas.

State Farm made its announcement to highlight July as the deadliest month of the year for teens nationwide. The average number of fatal crashes involving teenagers over the past decade has been highest in July, and that month has surpassed all other months in eight out of ten years from 2000 to 2009, based on crash records from the National Highway Traffic Safety Administration.

“Teenagers face more danger on the roads than any other group, and that danger peaks in July,” said State Farm Public Affairs Manager Sophie Harbert. “This is an ideal time for us to highlight our support of Teens in the Driver Seat and our overall commitment to roadway safety.”

Started in 2003, Teens in the Driver Seat is the nation’s first peer-to-peer program focused exclusively on teen driving safety. The program was developed by the Texas Transportation Institute (TTI) and is designed to capitalize on the profound degree of influence that young people have on each other. Crash trends suggest that the program is having a meaningful impact. Since the program started, the number of teen drivers involved in fatal crashes has dropped more steadily in Texas than in any other state.

To learn more about the program visit http://t-driver.com.
With overwhelming evidence that seat belts save lives and help prevent serious injuries from automobile crashes, this year’s Texas Click It or Ticket (CIOT) campaign achieved a significant milestone — 10 years of success.

Since 2002, law enforcement officers have spent two weeks around Memorial Day targeting drivers and their passengers who are not wearing their seat belts. Violators can face up to a $250 fine. Since the CIOT campaign began, seat belt use in Texas has reached record levels.

And according to Katie Womack, a senior research scientist in the Texas Transportation Institute’s Center for Transportation Safety, the high percentage of seat belt use is continuing.

Based on her annual, on-location surveys conducted immediately following the CIOT campaign — which this year ran from May 23 through June 5 — Womack and her team determined that 93.68 percent of drivers and their front-seat passengers are buckling up. Last year’s results were statistically the same at 93.84 percent.

When CIOT began, only 76 percent of Texas drivers and front-seat passengers buckled up. Last year’s number reached an all-time high. (In the decade of the campaign, the National Highway Traffic Safety Administration claims that as a result of the increased belt use in Texas, 2,843 lives were saved and 48,000 fewer people suffered serious injuries.)

“After 10 years of Click It or Ticket, we’ve seen firsthand that the message is working,” Womack says. “I think what has been very effective in the campaign — aside from the fact that people know that belts save lives — is that drivers and their passengers do not want to get a ticket. Clearly that has been a motivator in changing behavior.”

Womack was surprised when a teenager in a focus group she was conducting recently (unrelated to CIOT) commented: “I remember the first time I heard ‘Click It or Ticket’ I thought it was just the coolest phrase ever.” Womack was impressed that the campaign was reaching teenagers, as well as adults.

Survey results of 2011 seat belt use released following Click It or Ticket anniversary campaign
Survey results of 2011 seat belt use released following Click It or Ticket anniversary campaign

The outreach portion of the CIOT campaign took on extra significance for the anniversary. The Texas Department of Transportation developed a website, Facebook page, YouTube commercials and numerous public service announcements — and even an 18-foot-by-7-foot sculpture highlighting the number “2,843,” to show the number of lives saved. The sculpture traveled to 12 Texas cities for press events.

“We are pleased that the messages are reaching so many people, and that we were able to maintain our high level of seat belt use over the last year,” TxDOT Traffic Safety Director Terry Pence says. “It means that lives are continually being saved. The challenge as we go forward is continuing this trend, and we are going to target those areas that we know could improve.”

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—Katie Womack
Senior Research Scientist, TTI

Based on Womack’s seat belt surveys, Pence will continue to target the places and people who are not using the belts as much as the rest of the population, specifically, drivers in rural areas, pickup truck drivers and their passengers, and younger drivers.