AUTOMATED ENFORCEMENT

Issue

Excess speed can contribute to both the frequency and severity of motor vehicle crashes. Red light running can result in preventable and often serious crashes.

Impact

In 2022, 12,151 people were killed in speeding-related crashes, accounting for 29% of total crash fatalities. In the same year 1,272 people died in crashes involving red light running at signalized intersections.

Solutions

Laws, Technology and Roadway Safety Infrastructure

Automated Enforcement Programs Augment Traditional Enforcement and are Effective in Deterring Excessive Speed on Our Roadways

Safety Technologies and Improved Safety Standards Can Protect Vehicle Occupants and Other Road Users

- Proven collision avoidance systems in vehicles including AEB, LDW, BSD, rear AEB, and rear-cross traffic alert should be required.
- Speed assistance systems, such as intelligent speed assistance (ISA), can provide information to drivers about present speed limits, warn drivers when a car's speed is above the limit, prevent a car from exceeding the speed limit, or maintain a set speed. A new study on a pilot program with New York City owned fleet vehicles equipped with ISA has shown it is effective at reducing incidences of speeding. A recent survey from IIHS finds strong public support for ISA technology in personal vehicles.
- Vehicle-to-everything (V2X) technology offers the potential to improve safety by relaying signals to the vehicle about upcoming traffic lights and speed limits, among other messaging.

Road Safety Infrastructure Improvements and the Safe System Approach

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The Facts

- NHTSA has identified speeding as one of "three major behavioral factors" that contribute to motor vehicle crashes.
- Small changes in speed can have a big impact on safety. Crash tests conducted in 2019 showed that modest five to ten mile-per-hour (mph) increases in speed can have a severe impact on a driver's risk of injury or death.
- Speed increases have major implications for pedestrians. The average risk of death for a pedestrian is 10% at an impact speed of 23 mph, 25% at 32 mph and 50% at 42 mph.
- Speed-related crashes caused $46.4 billion in economic costs and $225 billion in comprehensive costs in 2019. This accounts for 14% of all economic costs and 16% of all societal harm (measured as comprehensive costs) from motor vehicle crashes. Updated for inflation alone, in 2024, the economic costs would be $57 billion and comprehensive costs would be $276 billion.
- Drivers acknowledge that excess speed is dangerous, yet there is a disconnect in their actions. According to a 2023 AAA Foundation report:
  - Approximately half (48.1%) of drivers surveyed drove 15 mph over the speed limit on a freeway in the past month, even though 78% of those surveyed say doing so is moderately to extremely dangerous.
  - About 35% of drivers surveyed drove 10 mph over the speed limit on a residential street in the past month, even though 90% of those surveyed believe doing so is moderately to extremely dangerous.

- 68% of respondents in a December 2021 survey said they are "extremely" or "very" concerned about speeding, according to an opinion poll commissioned by Advocates and conducted by ENGINE Insights using the CARAVAN survey.
- A 2020 review by the Congressional Research Service (CRS) found that speed safety camera programs are effective in reducing speeding and/or crashes near cameras.
- Speed safety cameras alone resulted in a 19% reduction in the likelihood that a crash resulted in a fatal or incapacitating injury.
- Intersection crashes caused $179 billion in economic costs and $639 billion in comprehensive costs in 2019. Updated for inflation only, these costs would equate to $219 billion in economic costs and $783 billion in comprehensive costs in 2024.
- IIHS found that red light cameras reduced fatal red light running crashes by 14% and all fatal crashes at signalized intersections by 21%.
- Cities that took down their red light cameras experienced a 30% increase in deadly red light running crashes and a 16% increase in fatal crashes at signalized intersections overall.
- Drivers recognize that running a red light is dangerous but continue to do so. A 2022 survey by the AAA Foundation found that 83% of drivers said that doing so is very or extremely dangerous but 25% admitted to running a red light in the past 30 days.

Turning Tragedy into Tireless Roadway Safety Advocacy

The Gainesville Sun

Melissa Wandall: Florida's deadly intersections took my husband

4/11/09

HELPING SURVIVORS AND SAVING LIVES

In 2003, Melissa Wandall and her husband, Mark, were excitedly anticipating the birth of their first child. But on October 24, Melissa's life changed forever. Mark was killed in a devastating crash when a driver ran a red light. Three weeks later, their daughter, Madisyn Grace, was born, never having the opportunity to know her father.

Melissa channeled her pain into purpose and began advocating for red light cameras in Florida to improve road safety. After five long years, her relentless efforts culminated in the passing of the Mark Wandall Traffic Safety Act, which finally allowed local governments to utilize this life-saving technology.

Today, Melissa is a well-known leader in traffic safety. She is a powerful voice for change, serving as a keynote speaker, advocate consultant, philanthropist and the President of the National Coalition for Safer Roads (NCSR). She also supports initiatives such as Target Zero Florida and Vision Zero, aiming to eliminate all traffic fatalities and serious injuries.

Melissa also founded The Mark Wandall Foundation, in memory of her husband and in honor of their daughter, Madisyn. The non-profit offers support to children, teens and young adults who have lost a parent, sibling or guardian, offering resources, programming and hope as they navigate their grief.

Through her advocacy and philanthropy, Melissa has turned personal tragedy into an ongoing mission to protect and uplift others, ensuring her legacy and her husband's name live on in the countless lives she touches. The work of a passionate advocate is never truly finished; it is an unending pursuit, constantly driving toward progress and impact.

LOOKING TO 2025

Melissa will continue combating misinformation about automated enforcement to encourage lawmakers to support legislation allowing the technology's deployment. Advocates will work with Melissa to push for laws that save lives and resist efforts to weaken traffic safety.

Melissa Wandall speaking at a 2024 National Stop on Red Week event

Then Gov. Charlie Crist (D-FL) signing the Mark Wandall Traffic Safety Act in 2011 alongside Melissa and daughter Madisyn Wandall

AUTOMATED ENFORCEMENT

In 2021, AAA, Advocates, Governors Highway Safety Association, IIHS and the National Safety Council jointly released the Automated Enforcement (AE) Checklist to convey their support for the proven technology and to help communities implement successful AE programs by ensuring the focus is on safety and transparency and includes equity considerations, among other improvements.

AUTOMATED ENFORCEMENT PROGRAM CHECKLIST

For red light cameras and automated speed enforcement

Automated enforcement is an effective tool to make roads safer. Research shows that red light cameras reduce violations and injury crashes, especially the violent front-into-side crashes most associated with red light running. Speed cameras have been shown to reduce vehicle speeds, crashes, injuries and fatalities. Both types of programs should be designed, implemented and administered properly. Poorly run programs are less likely to be durable and may undermine support for automated enforcement generally.

Speed and red light camera programs augment traditional enforcement to improve traffic safety by deterring dangerous driving behaviors. Automated enforcement does not require traffic stops, and well-designed programs can improve safety for all road users in a neutral manner.

Successful programs are transparent and have a strong public information component. Communities should take into account racial and economic equity when making decisions about camera placement and fines. Automated enforcement programs should be data-driven and should prioritize safety, not revenue. In fact, communities should expect that revenue will decline over time as fewer drivers run red lights or violate speed limits.

This checklist assumes your community is already legally authorized to set up a program. It provides a minimum list of considerations to help you follow best practices. The goal is to operate a successful program that reduces crashes and prevents deaths and injuries while maintaining strong public support. Automated enforcement can be integrated into broader efforts to discourage unsafe driving that includes optimizing speed limits for safety and improving roadway design.

AAA · ADVOCATES FOR HIGHWAY & AUTO SAFETY · GHSA Governors Highway Safety Association The States' Voice on Highway Safety · IIHS HLDI · nsc National Safety Council

FIRST STEPS

- [ ] Identify problem intersections and roadways.
  - Assess violation and crash data.
  - Conduct field observations.
  - Collect resident and roadway user input.
- [ ] Consider what role automated enforcement should play as part of a comprehensive traffic safety strategy.
- [ ] Make any engineering or signage changes needed to improve drivers' compliance with the law.
  - Ensure the road geometry conforms with guidelines from the American Association of State Highway and Transportation Officials, National Association of City Transportation Officials guidance or state road design manuals, as appropriate.
  - Remove sightline obstructions of signals and signage.

  For red light cameras:
  - Ensure that yellow light timing conforms to the Manual on Uniform Traffic Control Devices and Institute of Transportation Engineers guidelines.

  For automated speed enforcement:
  - Ensure the speed limit is appropriate and accounts for all road users. Follow guidance and use tools from the Federal Highway Administration, Institute of Transportation Engineers, and the National Association of City Transportation Officials.
  - Ensure the speed limit is appropriate for special conditions, such as work zones and school zones.
  - Assess whether engineering changes could be made to promote compliance with the speed limit.
  - Ensure adequate posting of speed limits.
- [ ] Establish an advisory committee comprised of stakeholders.
  - Consider including law enforcement, transportation department employees, victim advocates, equity and civil rights advocates, school officials, community residents, first responders, health officials and the courts.
  - Outline the committee's role. This may include developing guiding principles related to safety, equity, and transparency, as well as other aspects of the program.
  - Ensure committee meetings are open to the public and deliberations are transparent.
- [ ] Meet with the media, including newspaper editorial boards, to build support and educate the public.

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SECOND STEPS

- [ ] Make program design decisions, consulting with the advisory committee as appropriate.

Program design considerations

Target violations with the greatest safety consequences. For example, you might decide not to ticket for right-turn-on-red violations when pedestrians, bicyclists, and oncoming vehicles are not present or to limit violations in work zones to when workers are present, provided the road configuration has not also been altered for construction.

Establish a reasonable fine structure. Create options for indigent violators such as payment plans or other alternatives.

Establish a threshold that must be crossed before a vehicle is photographed for a violation of red light running or speeding (i.e., a period after a light turns red or a certain mph over the posted speed). The point is to target flagrant, rather than marginal, infractions.

Programs should include a process for evidence review by appropriately trained personnel to determine if a violation occurred and issue a citation if warranted.

Establish clear procedures for contesting an alleged violation. Consider options to contest online or by mail.

When possible, red light camera violations should be recorded in real time video, and videos of the offense should be made available to the vehicle owner for review via the Internet.

Fines in excess of program costs should be allocated to transportation safety programs.

- [ ] Use safety data gathered in the first steps to determine camera locations, ensuring that particular neighborhoods are neither overlooked nor overrepresented.
- [ ] Publicize the extent of the safety problem and the need for innovative solutions.
- [ ] Secure a vendor and establish payment based on the vendor's actual costs, not the number of citations.
- [ ] Publicize procedures for contesting an alleged violation.
- [ ] Create a website and social media plan to publicize program details, such as how to pay and dispute tickets. Establish a method for answering questions accurately and in a timely manner.
- [ ] Develop an emergency action plan for handling problems, such as system malfunctions.

IMPLEMENTATION

- [ ] Hold a kickoff event with advisory committee members. Introduce a well-developed and sustained public education campaign focused on improving safety by changing driver attitudes and behavior.
- [ ] Connect the program to overall roadway safety in the community and identify the goal of zero tickets resulting from changes in driver behaviors.
- [ ] Install prominent warning signs.
- [ ] Start with a probationary period during which only warnings are issued.
- [ ] Follow current guidance from the U.S. Department of Transportation for implementation and operation of automated enforcement devices.
- [ ] Allow for due process. Minimize the number of days between the violation and citation issuance.

LONG TERM

- [ ] Publicize changes, including new camera locations. Reinstate the probationary period before ticketing begins at new locations.
- [ ] Monitor program operation and publicize results. Undertake periodic reviews and ensure racial, economic and other equity issues and public concerns are addressed.
- [ ] Require regular field reviews. Verify monthly camera calibration and synchronization with signals.
- [ ] Require regular evaluations of the traffic safety benefits of the program by collecting crash and infraction data. Before-and-after comparisons must use control intersections and roadways. Include control intersections and roadways that are not subject to spillover effects.
- [ ] Regularly meet with the advisory committee and media to review program status and sustain public support.
- [ ] Continue to improve programs based on new and updated guidance and best practices and look for opportunities to expand automated enforcement use.
- [ ] Consider other changes, including roadway design improvements, in order to reduce opportunities for unsafe driving.

AAA | Advocates for Highway Safety | Governors Highway Safety Association
IIHS-HLDI | National Safety Council
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AUTOMATED ENFORCEMENT

The Solutions - Laws Rating Chart and Map

GOOD

State has all four optimal measures —**17 states plus DC**

CAUTION

State has two or three optimal laws—**10 states**

DANGER

State has one or zero optimal laws —**23 states**

● Optimal law adopted

	Alabama	Alaska	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	DC	Florida	Georgia	Hawaii	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina	South Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Wyoming	TOTAL
STATE RATING	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
OPTIMAL LAWS: Permits Automated Speed Enforcement by Law	●		●	●	●	●	●	●	●	●	●	●	●		●	●	●		●	●		●	●	●	●				●			●			●		●	●	●				●		●	●	●	●			28 + DC
OPTIMAL LAWS: Automated Speed Enforcement in Use	●		●	●		●	●	●	●	●	●	●			●	●	●		●	●		●	●										●	●		●		●	●	●				●				●	●			22 + DC
OPTIMAL LAWS: Permits Automated Enforcement for Red Light Running by Law	●		●		●	●	●	●	●	●	●	●	●		●				●	●		●		●					●			●	●	●	●		●	●	●				●				●	●			24 + DC
OPTIMAL LAWS: Automated Red Light Enforcement in Use	●		●		●	●		●	●	●	●	●	●		●		●		●	●		●				●								●	●		●		●	●	●			●	●				●	●			23 + DC

Hawaii, Michigan, Minnesota and Vermont passed laws permitting automated speed enforcement. Delaware and Florida gained credit for use of automated speed enforcement. Missouri and New Mexico no longer receive credit for enacting a law to permit automated speed enforcement based on a new analysis of their laws.