ADVOCATES
FOR HIGHWAY
& AUTO SAFETY

October 13, 2021

The Honorable Walter F. Timilty, Senate Chair
The Honorable Carlos González**,** House Chair
Joint Committee on Public Safety and Homeland Security
General Court of the Commonwealth of Massachusetts
24 Beacon Street
Boston, Massachusetts 02133

Dear Chair Timilty and Chair González:

Advocates for Highway and Auto Safety (Advocates), an alliance of consumer, safety, medical, public health and law enforcement groups, and insurance companies working together to prevent motor vehicle crashes, save lives, reduce injuries and contain crash costs, supports passage of pending safety legislation -- Senate Bill (S) 1591 / House Bill (H) 2515 and H. 2543 to upgrade the state's seat belt law to primary enforcement for all occupants and S. 1545, H. 2426 and H. 2532 to permit use of automated enforcement programs. A comprehensive seat belt law and use of automated enforcement systems to curb deadly driving behaviors, such as speeding and red light running, are vital to overcome the public health epidemic of traffic fatalities and injuries, and to ensure the health and safety of Massachusetts families and visitors who travel on the Commonwealth's roads.

In 2020, 327 people were killed and more than 24,000 injured in motor vehicle crashes in Massachusetts despite a drop in vehicle miles traveled according to the Massachusetts Department of Transportation (MassDOT). Lack of restraint use is a major contributing factor to traffic deaths and injury. Approximately 60 percent of motor vehicle occupants killed in crashes in 2020 were unrestrained, based on known use (MassDOT). The uptick in incidents of reckless driving and speeding on roads with less traffic due to the COVID response has been noted as a factor in traffic fatalities. The National Highway Traffic Safety Administration (NHTSA) finds that over the ten-year period of 2010 to 2019, motor vehicle crashes claimed the lives of 3,576 people in Massachusetts. Traffic crashes are a serious issue in urgent need of the effective solutions provided by an all-occupant primary enforcement seat belt law and use of automated enforcement systems.

Seat belt use rates increase from 10 to 15 percentage points when primary laws are passed, as experienced in a number of states. A study conducted by the Insurance Institute for Highway Safety (IIHS) found that when states strengthen their laws from secondary to primary enforcement, driver death rates decline by an estimated seven percent. Moreover, research on the relationship between primary enforcement belt laws and ticketing found the share of citations for Hispanics and African Americans changed very little after states adopted primary enforcement belt laws. In fact, significant gains in seat belt use among all ethnic groups were experienced, none of which were proportionately greater in any group.[i] A new resource from NHTSA, *Seat Belt Use, Race, and Hispanic Origin,* found that support for primary enforcement seat belt laws is strong across races including Asian, Black, Hispanic, Multiracial and White.[ii] A range from 69 percent (Multiracial) through 89 percent (Asian) agreed that "police should be allowed to stop a vehicle if they observe a seat belt violation when no other traffic laws are being broken."[iii]

In addition to saving lives and preventing lifelong debilitating injuries, seat belts save taxpayer dollars. Motor vehicle crashes cost Massachusetts nearly $6 billion annually (NHTSA). Unbelted crash victims have medical

bills that are 55 percent higher than belted victims, and society bears a majority of the cost through increased insurance premiums, taxes and health care costs.[iv] Non-use of restraints impacts businesses as well and resulted in costs to employers of $7.4 billion in 2018, $5.7 billion of which was attributed to off-the-job non-restraint use.[v] A study on seat belt use in Massachusetts released by NHTSA estimated that upgrading to a primary enforcement law would lower the annual cost to crash victims by more than $3.9 million, Massachusetts would reduce its annual costs due to crashes by $5.7 million and the federal government's costs would decrease by about $3.9 million annually.[vi]

Small changes in speed can have a big impact on safety. Crash tests conducted in 2019 showed that modest five to ten miles-per-hour (mph) increases in speed can severely affect a driver's risk of injury or even death.[vii] Speed increases have major implications for pedestrians as well, with the average risk of death for a pedestrian reaching 10 percent at an impact speed of 23 mph, 25 percent at 32 mph and 50 percent at 42 mph.[viii] Further, nearly half (48 percent) of speeding passenger vehicle drivers in fatal crashes were unbuckled, compared to 21 percent of non-speeding drivers.[ix] Lastly, according to the Federal Highway Administration (FHWA), Americans are more likely to be injured in a red light running related event than any other crash.

Deterring speeding and red light running is critical, but it is implausible for law enforcement to be present at every incidence. When properly implemented, automated enforcement systems (speed and red light cameras) augment traditional enforcement in a neutral manner and curb deadly driving behaviors. Speed cameras alone resulted in a 19 percent reduction in the likelihood that a crash resulted in a fatal or incapacitating injury.[x] According to the Insurance Institute for Highway Safety (IIHS), rates of fatal red light running crashes were 21 percent lower and of all fatal crashes were 14 percent lower at signalized intersections in cities with camera programs. This "spillover" effect amplifies the safety benefits of camera programs. To encourage greater use of automated enforcement and affirm our organizations' support for the proven technology, Advocates jointly released the Automated Enforcement Checklist (AE Checklist) with AAA, IIHS, Governors Highway Safety Association (GHSA) and National Safety Council (NSC) in May 2021 (attached).

MassDOT has stated that its overarching goal is to, "Actively manage the nation's safest transportation system to minimize injuries whenever, wherever and to whomever possible." Upgrading Massachusetts's seat belt law from secondary to primary enforcement and integrating technology to deter dangerous driving behaviors are essential to MassDOT's effort and attaining this goal. We urge the Committee to advance this commonsense legislation.

Sincerely,

Catherine Chase
President

Encls: Automated Enforcement Checklist

cc: The Honorable Sonia Chang-Diaz, Senate Vice Chair
The Honorable David Biele, House Vice Chair
Joint Committee on Public Safety and Homeland Security Members

[i] Determining the Relationship of Primary Seat Belt Laws to Minority Ticketing, NHTSA, Sep. 2011, DOT HS 811535.

[ii] Seat Belt Use, Race, and Hispanic Origin, NHTSA, June 2021, DOT HS 813 142.

[iii] Ibid.

[iv] Crash Outcome Data Evaluation System (CODES) Project Seat Belt and Helmet Analysis, Research Note (Revised), National Center for Statistics and Analysis, NHTSA, February 15, 1996.

[v] Cost of Motor Vehicle Crashes to Employers 2019; Network of Employers for Traffic Safety, available at: https://trafficsafety.org/road-safety-resources/public-resources/cost-of-motor-vehicle-crashes-to-employers-2019/.

[vi] *Estimated Medical Cost Savings in Massachusetts by Implementation of a Primary Seat Belt Law,* 2008, NHTSA, available at: https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/811067.pdf.

[vii] Impact of Speeds on Drivers and Vehicles – Results from Crash Tests, AAA Foundation for Safety, Humanetics, and IIHS, Jan. 2021, available at https://www.iihs.org/api/datastoredocument/bibliography/2218

[viii] Impact Speed and a Pedestrian's Risk of Severe Injury or Death, AAA Foundation for Traffic Safety, Sep. 2011., available at https://aaafoundation.org/wp-content/uploads/2018/02/2011PedestrianRiskVsSpeedReport.pdf

[ix] Traffic Safety Facts 2018 Data: Speeding, NHTSA, Apr. 2020, DOT HS 812 932, available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812932

[x] Effects of Automated Speed Enforcement in Montgomery County Maryland on Vehicle Speeds, Public Opinion and Crashes, Insurance Institute for Highway Safety, August; available at https://www.iihs.org/topics/bibliography/ref/2097

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.

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.

AAA
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GHSA Governors Highway Safety Association The States' Voice on Highway Safety
IIHS HLDI
nsc National Safety Council

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.

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