

**Statement of Richard Retting  
Before the Transportation Committee**

**House Bill 6056**

**February 25, 2013**



Senator Maynard, Representative Guerrero, and members of the Committee,

My name is Richard Retting and I would like to offer brief comments in support of House Bill 6056, An Act Concerning Municipal Automated Traffic Enforcement Safety Devices at Certain Intersections.

I am Vice President and Director of Safety & Research for Sam Schwartz Engineering. Prior to joining SSE in 2008 I served for 18 years as Senior Transportation Engineer for the Insurance Institute for Highway Safety. Before that I served as Deputy Assistant Commissioner for the New York City Department of Transportation in the 1980s, when the nation's first red light camera law was drafted and enacted.

I have an extensive traffic engineering and research background directly related to implementation and evaluation of automated traffic enforcement technology. This experience includes numerous papers published in scientific proceedings and engineering journals. I am happy to share my experience and expertise with Connecticut law makers.

Numerous studies conducted throughout the United States show that motorists frequently run red lights. Such violations may seem trivial to the violators, but the safety consequences are real:

- On a national basis in 2010, 673 people were killed and an estimated 122,000 were injured in crashes that involved red light running
- About half of the deaths in red light running crashes are pedestrians, bicyclists, and occupants in other vehicles who are hit by the red light runners

Red light cameras are effective at modifying driver behavior. On this question, the research is conclusive. Studies that I led at the Insurance Institute for Highway Safety (IIHS) documented reductions in red light running that ranged from 40 to 96 percent.

The key question is, do changes in driver behavior produced by red light cameras reduce injury crashes and save lives? Numerous research findings indicate they do:

- At IIHS I served as lead author on the first major U.S. study that addressed this question. In Oxnard, CA, injury crashes were reduced by about 30 percent. Side impact collisions involving injuries were reduced 68 percent.
- A more recent study by IIHS compared changes in fatal red light running crashes for cities with and without red light cameras.
  - After controlling for population density and land area, the rate of fatal red light running crashes during 2004-08 for cities with camera programs was an estimated 24 percent lower than would have been expected without cameras.
  - This translates into hundreds of lives saved.

- A 2005 Federal Highway Administration study evaluated red light camera programs in seven communities. The study found:
  - Right-angle crashes decreased by 25 percent while rear-end collisions increased by 15 percent
  - Because the types of crashes prevented by red light cameras tend to be more severe and more costly than the additional rear-end crashes that can occur, the study found a positive societal benefit of more than \$14 million
  - The authors concluded that the increase in rear-end crash frequency does not offset the societal benefit resulting from the decrease in right-angle crashes targeted by red light cameras
  
- The Texas Transportation Institute analyzed the effectiveness of red light cameras at 56 intersections in Texas. The study found:
  - 43 percent annualized decrease in right angle collisions
  - 30 percent annualized decrease in total collisions
  - Although the number of overall rear-end crashes increased slightly by 5 percent, two-thirds of the intersections decreased or maintained the same frequency of rear end crashes
  
- Research based on a review of the international literature provides further evidence that red light cameras can significantly reduce violations and related injury crashes:
  - A detailed assessment that I led of international studies of camera effectiveness indicates that red light camera enforcement generally reduces violations by an estimated 40-50 percent, and reduces overall injury crashes by 25-30 percent.
  - The Cochrane Collaboration, an international nonprofit organization that conducts systematic reviews of the scientific literature on public health issues, reviewed 10 controlled before-after studies of red light camera effectiveness from Australia, Singapore, and the United States. The authors reported that those studies showed a 16 percent reduction in all types of injury crashes and a 24 percent reduction in right-angle crashes. The review did not find a statistically significant change in rear-end crashes.

Red light cameras are a successful example of public-private partnerships, in which the government retains technology and contracted technical personnel to supplement traditional law enforcement activities. If managed properly, the government maintains control over the enforcement process, with technology suppliers providing a supporting role to fulfill specified equipment and personnel needs.

Some opponents of camera enforcement claim that red light cameras dramatically increase rear-end crashes. This simply is not true:

- Data from red light camera programs across the nation show no consistent pattern of changes in rear-end crashes. We have seen some increase, some decreases, and instances of no significant change.
- As a traffic engineer, I'd like to point out that traffic signals themselves cause rear-end crashes. Rear-end crashes are the most common type of collision at signalized intersections in Connecticut, and throughout the country.
- Several studies with significant methodological errors have reported an overall increase in crashes associated with implementation of red light cameras. It's not surprising that opponents of red light cameras seize on these erroneous studies to support their ideological opposition to camera enforcement.

Privacy is an important consideration, and frequently raised in the context of automated traffic enforcement:

- Photographing vehicles whose drivers run red lights does not violate protected privacy interests.
- Red light cameras in Connecticut would record only the rears of vehicles, not the occupants.
- Besides, driving is a regulated activity on public roads. Neither the law nor common sense suggest that flagrant traffic violations should not be recorded.
- My written testimony includes a summary of privacy-related court decisions concerning automated enforcement.

Like other government policies and programs, red light cameras require acceptance and support from the public and elected leaders:

- Although the "big brother" issue is raised by opponents of automated enforcement, public opinion surveys consistently reveal wide acceptance and strong public support for red light cameras.
- Telephone surveys in many U.S. cities have consistently found that a majority of drivers support the use of red light cameras.

I'd like to conclude with a few sobering crash facts that should be weighed against the claim raised by opponents that red light cameras serve no safety purpose, and are simply money makers:

- Each year, about 300 traffic fatalities occur in Connecticut
- 85% of these deaths occur off the interstate system, on State and local roads, where intersections are often present and a factor in fatal crashes
- According to the Centers for Disease Control, the annual cost of fatal crashes in Connecticut is more than 260 Million dollars. This cost does not include tens of thousands of non-fatal crashes that occur each year.
- The staggering costs borne by Connecticut taxpayers for preventable crashes must be weighed against the fines that would be paid by red light runners, and the dubious claim that ticketing violators for committing traffic offenses on public roads represents an invasion of privacy.

Thank you for the opportunity to provide testimony on this important public safety issue.

## Appendix A

Summary of privacy-related decisions concerning automated enforcement as summarized on IIHS website -- [http://www.iihs.org/laws/auto\\_enforce\\_cases.html](http://www.iihs.org/laws/auto_enforce_cases.html)

A District of Columbia trial judge made reference to unspecified privacy concerns and said, "[privacy] concerns are outweighed by the legitimate concerns for safety on our public streets." *Agomo v. Fenty*, 916 A.2d 181 (D.C. App. 2007). Taking a photograph of a vehicle license plate does not violate any privacy right. *Arizona v. Hicks*, 480 U.S. 321 (1987) (police can record serial numbers in plain view); *New York v. Class*, 475 U.S. 106 (1986) (police can move papers covering a vehicle identification number).

A California appellate court addressed the claim that automated enforcement violates privacy statutes protecting Department of Motor Vehicle driver records from disclosure. The court noted that the privacy statute allows government and law enforcement agencies access to driver records. The court held that the privacy challenge lacks merit "because private contractors are authorized to obtain the information directly from the DMV as an arm of law enforcement agencies in red light cases, and the information is used for legitimate purposes. It noted that the automated enforcement statute specifically authorizes use of contractors to provide services that are not expressly reserved to the municipalities. Review of driver records is not expressly reserved. *In re Red Light Photo Enforcement Cases*, No. D048882, California Court of Appeal, 4th App. Dist. 1, Div. 1, June 13, 2008. This case is on appeal to the California Supreme Court (No. S165425).

When an attorney sued the District of Columbia for a list of people issued red light camera citations at a specific location, the DC Court of Appeals held that such information is not public and not subject to the Freedom of Information Act. *Wemhoff v. District of Columbia*, No. 04-CV-1310, DC Court of Appeals, December 15, 2005.

## APPENDIX B - EXPERIENCE AND QUALIFICATIONS

Richard Retting, M.S., FITE, is Vice President and Director of Safety & Research Services at Sam Schwartz Engineering (SSE), with extensive traffic engineering and research experience directly related to implementation and evaluation of automated traffic enforcement. Before joining SSE in 2008 he served for 18 years as Senior Transportation Engineer with the Insurance Institute for Highway Safety, prior to which he served as Deputy Assistant Commissioner for New York City Department of Transportation. With respect to automated traffic enforcement, Mr. Retting served as principal investigator or co-principal investigator on the following studies:

*System Analysis of Automated Speed Enforcement Implementation* – Mr. Retting serves as Co-Principal Investigator for this NHTSA project. Tasks include identification and documentation of all US jurisdictions using speed cameras; collect detailed information on camera programs; identify key variables related to camera programs; identify and gather data and/or databases that may be used to evaluate automated speed enforcement program effectiveness.

*Evaluation of Red Light Camera Enforcement in Fairfax, VA* - As Principal Investigator, Mr. Retting selected study sites and collected red light running data; coordinated all research and data analysis; designed and managed public opinion surveys; served as lead author on final report.

*Evaluation of Red Light Camera Enforcement in Oxnard, CA* - As Principal Investigator, Mr. Retting selected study sites and collected red light running data; coordinated all research and data analysis; designed and managed public opinion surveys; served as lead author on final report.

*Evaluation of Red Light Camera Enforcement in Philadelphia, PA* - As Principal Investigator, Mr. Retting selected study sites and collected red light running data; coordinated all research and data analysis; designed and managed public opinion surveys; served as lead author on final report.

*Implementation and Evaluation of Automated Speed Enforcement, Montgomery County, MD* – As principal investigator, Mr. Retting selected study sites and collected data for 40 locations; coordinated all research and data analysis; developed criteria for site selection for deployment of automated speed enforcement; coordinated public outreach and public information; managed public opinion surveys; served as lead author on final report.

*Evaluation of Speed-on-Green Enforcement at Signalized Intersections, Mesa, AZ* - Mr. Retting developed the experimental design and data collection protocols, selected study sites, and collected data for 22 intersections in Mesa and Phoenix. Coordinated data reduction from video and electronic files.

*Evaluation of Automated Speed Enforcement, Washington, DC* – As principal investigator, Mr. Retting selected study sites and collected data for 14 locations; coordinated all research and data analysis; managed public opinion surveys; served as lead author on final report.

*Evaluation of Automated Speed Enforcement on Loop 101 in Scottsdale, AZ* - As Principal Investigator, Mr. Retting selected study sites and collected speed data; coordinated all research and data analysis; designed and managed public opinion surveys; served as lead author on final report.

*Characteristics of Speeders: A Field Investigation* - Mr. Retting served as principal investigator for a research project that identified characteristics of drivers traveling at excessive rates of speed. Selected study sites; coordinated all research and data analysis; served as primary contact with DMV; served as lead author on final report.

Characteristics of Red Light Runners: A Field Investigation – Mr. Retting served as principal investigator for a research project that identified characteristics -- including seat belt use -- of drivers observed running red lights. Managed research design, site selection, and data collection. Served as primary contact with Virginia DMV. Identified parameters and the format of relevant data elements in DMV driver records file; developed procedures for linking registered vehicle owner with driver records; obtained approval for release of driver license records.

School Zone Speed Evaluations, Prince George's County, MD - For this study Mr. Retting collected speed data and conducted statistical analysis for school zones throughout Prince George's County; made recommendations regarding appropriate sites for automated speed enforcement; conducted evaluations of speed enforcement in school zones; served as an ongoing technical resource to the County on this issue.

NCHRP Project 03-93: Automated Enforcement for Speeding and Red Light Running - Mr. Retting serves as Chair of this TRB project which is designed to determine which automated enforcement programs have been successful, what contributed to their success, to draw lessons from unsuccessful programs, and develop guidance for use of automated enforcement.

NCHRP Guidelines on Yellow and All-Red Traffic Signal Timing - For this study Mr. Retting conducted a critical literature review of behavioral effects and crash effects associated with changes in signal timing; participated in research and development of national guidelines. Will serve as contributing author on Final Report.

Mr. Retting was an author of the following published studies:

- Retting, R.A.; Farmer, C.F. and McCartt, A.T. 2008. Evaluation of Automated Speed Enforcement in Montgomery County, Maryland. *Traffic Injury Prevention* 9: 440-445.
- Retting, R.A.; Kyrychenko, S.; and McCartt, A.T. 2008. Evaluation of automated speed enforcement on Loop 101 in Scottsdale, Arizona. *Accident Analysis and Prevention* 40:1506-1512.
- Retting, R.A.; Ferguson, S.A. and Farmer, C.M. 2008. Reducing red light running through longer yellow signal timing and red light camera enforcement: results of a field investigation. *Accident Analysis and Prevention* 40 (2008) 327-333.
- Retting, R.A. and Chapline, J.F. 2002. Changes in Crash Risk Following Re-Timing of Traffic Signal Change Intervals. *Accident Analysis and Prevention* 34/2: 215-220.
- Williams, A.F.; Kyrychenko, S.Y.; and Retting, R.A. 2006. Characteristics of Speeders. *Journal of Safety Research* 37(3) 227-232.
- Retting, R.A. 2006. Establishing a Uniform Definition of Red Light Running Crashes. *ITE Journal* 76/3: 20-22.
- Retting, R.A. and Farmer, C.M. 2003. Evaluation of Speed Camera Enforcement in the District of Columbia. *Transportation Research Record No. 1830*: 34-37.
- Retting, R.A. 2003. Speed Cameras – Public Perceptions in the US. *Traffic Engineering and Control* 44/3: 100-101.
- Retting, R.A.; Ferguson, S.A.; and Hakkert, A.S. 2003. Effects of Red Light Cameras on Violations and Crashes: A Review of the International Literature. *Traffic Injury Prevention* 4/1: 17-23.
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- Carlson, P. and Retting, R.A. 2001. Evaluation of Red Light Camera Enforcement Signing. Proceedings of the 2001 Annual Meeting of the Institute of Transportation Engineers. Washington, DC. Institute of Transportation Engineers.
- Retting, R.A. and Williams, A.F. 2000. Public Opinion Regarding Red Light Cameras and the Perceived Risk of Being Ticketed. *Traffic Engineering and Control* June 2000.
- Retting, R.A.; Ulmer, R.; and Williams, A.F. 1999. Prevalence and Characteristics of Red Light Running Crashes in the United States. *Accident Analysis and Prevention* 31 (1999): 687-694.
- Retting, R.A.; Williams, A.F.; Farmer, C.M.; and Feldman, A. 1999. Evaluation of Red Light Camera Enforcement in Oxnard, California. *Accident Analysis and Prevention* 31 (1999): 169-174.
- Retting, R.A.; Williams, A.F.; Farmer, C.M.; and Feldman, A. 1999. Evaluation of Red Light Camera Enforcement in Fairfax, Virginia. *ITE Journal* 69/8: 30-34.
- Retting, R.A. and Greene, M.A. 1997. Influence of Traffic Signal Timing on Red Light Running and Potential Vehicle Conflicts at Urban Intersections. *Transportation Research Record No. 1595*: 1-7.
- Persaud, B.; Hauer, E.; Retting, R.A.; Vallurupalli, R.; and Mucsi, K. 1997. Crash Reductions Related to Traffic Signal Removal in Philadelphia. *Accident Analysis and Prevention* 29/6: 803-810.
- Retting, R.A. and Williams, A.F. 1996. Characteristics of Red Light Runners: Results of a Field Investigation. *Journal of Safety Research* 27/1: 9-15.

Mr. Retting has served on numerous NCHRP panels and TRB special committees including:

- Chair, NCHRP Project 03-93, Automated Enforcement of Speeding and Red Light Running
- NCHRP Special Project 20-5, Impact of Red Light Cameras on Crash Experience
- NCHRP Project 17-18(3), Guides on Reducing Fatalities Related to Speeding
- TRB Special Report 254, Managing Speed

