STATUS REPORT

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

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Officials nationwide give a green light to automated traffic enforcement

Cameras to stop red light runners attract far more support than speed cameras

For a long time there was resistance to using cameras to automatically identify vehicles driven by motorists who run red lights and drive a lot faster than the posted speed limits. Concerns about fairness, privacy, and "big brother" held sway. The resistance hasn't disappeared, but it's eroding.

"Red light cameras are the main type of automated enforcement that's gaining ground, and this is happening for a good reason," says Institute senior transportation engineer Richard Retting. "People understand deliberate red light running is a serious safety problem that can be addressed by cameras. Speed cameras aren't attracting the same support in the United States, at least not yet. But experience in a few places in this country and especially in Australia indicate that, if carefully deployed, speed cameras also can attract public support and reduce violations."

Red light cameras proliferate: The Institute has provided technical assistance on red light camera issues to more than 70 state and local governments. Ten years ago, no U.S. city or town used such cameras. As recently as five years ago, there was only one program. Today there are 37, and the roster is growing.

Such enforcement is needed because red light running is a leading cause of urban crashes (see *Status Report*, Feb. 6, 1993). Institute research shows cameras can reduce red light running at intersections where the cameras are deployed and even at nearby intersections where they're not in use (see *Status Report*, Dec. 5, 1998; on the web at www.highwaysafety.org).

Localities now using red light camera enforcement include Washington, D.C., where a 40-camera program has been launched (plans are afoot for speed cameras, too). Baltimore has 24 red light cameras and plans on doubling this number. Another 75 red light cameras — soon to grow to 200 — are being used elsewhere in Maryland.

New York City has 30 red light cameras now and will add 20 more. There are 20 such cameras in Charlotte, North Carolina, with programs planned in two other communities in the same state, Fayetteville and Matthews.

More than 10 California cities use red light cameras, including Beverly Hills, Culver City, El Cajon, Los Angeles, San Diego, and San Francisco. Cameras are in Boulder and Fort Collins, Colorado, as well as Scottsdale, Mesa, Tempe, and Paradise Valley, Arizona.

The Institute recently conducted random telephone surveys in 10 cities, 5 with red light cameras and 5 without. The cameras were supported by 80 percent of drivers in cities with red light cameras and by 76 percent elsewhere. Drivers in the five cities with camera enforcement perceive a greater risk of being ticketed for red light running than those in cities without cameras. Few respondents had actually been ticketed during the previous two years, but drivers in cities with cameras were more than twice as likely to know someone who had received a ticket.

The red light cameras used for a demonstration project in Vienna, Virginia, have a unique safety feature. The video-based system predicts potential red light violations and triggers an emergency extension of the red light signal for crossing traffic to help prevent collisions. "Our system discourages red light running, helps prevent crashes when red light running does occur, and doesn't cost the law-abiding taxpayer anything," Police Chief Dan Boring says.

"The real advantage of automated enforcement is this deterrent effect," Retting says. "We can't convince most motorists they might be in a crash, but with automated enforcement we can convince them they'll get a ticket if they break the law. The threat of a ticket, not the fear of a crash, is what prevents deliberate traffic violations."

Despite the growing deployment of red light cameras and public support for them, impediments still exist. One is the reluctance of officials in some places to implement programs without an explicit go-ahead from state legislators. For example, officials in several Virginia localities would like to install cameras but are waiting for the legislature to explicitly authorize new projects in areas beyond those permitted in 1995. "It's disappointing, frustrating," says Manassas Police Chief John Skinner. He formerly was police chief in Fairfax City, where a demonstration project was conducted, and strongly favors camera use.

Use of speed cameras far more limited: While red light camera use grows, speed cameras aren't following suit. They were installed in Paradise Valley, Arizona, in 1987 and Pasadena, California, in 1988. They've been in use for about four years in Portland and Beaverton, Oregon, and for about two years in Mesa and Tempe, Arizona. Cameras also are being used in Denver, Boulder, and Fort Collins, Colorado, but they're nowhere near as common as red light cameras. International use is wider — speed cameras have been used successfully in about 75 countries. The nearest example is in Canada, where researchers in British Columbia documented a decline in crashes, deaths, and injuries the first year cameras were used (see *Status Report*, Dec. 5, 1998; on the web at www.highwaysafety.org). British Columbia has the biggest program — 30 speed cameras rotated throughout the province — and such cameras are in use in several cities in Alberta. Speed cameras also are being used on one of the busiest roads in Europe, London's M25 (see *Status Report*, June 19, 1999; on the web at www.highwaysafety.org).

Cameras soon may be used to ticket speeders on the George Washington Memorial Parkway, a wooded four-lane drive outside Washington, D.C. that's under federal jurisdiction. Originally built for sightseeing, the parkway has served since the 1960s as a major commuter route for 56,000 motorists a day who frequently go 60 mph or more — 10 to 20 mph faster than posted limits.

When the Institute surveyed 1,000 drivers in 10 Virginia and Maryland communities near the parkway, the main question was whether motorists who regularly travel this route would support the proposed use of speed cameras. Overall, 57 percent said yes, and most said they "strongly" favor speed cameras. Drivers who indicated that speeding is a big problem were significantly more likely (65 percent) to strongly support camera enforcement than drivers who thought speeding was either "somewhat" of a problem (30 percent support for cameras) or not a problem (14 percent support). These findings mirror those of earlier Institute surveys (see *Status Report*, Jan. 27, 1990).

Still, enthusiasm for speed cameras is less than for red light cameras, maybe because of a general wariness about overly aggressive traffic enforcement stemming from the image of "speed traps." To counter this, it's important to set cameras to photograph serious speed violators, not motorists going just a few miles per hour faster than the limit. "The best camera locations are high-crash sites where speeding is a problem and in neighborhoods where local residents favor cameras to slow down through traffic — not on limited access high-speed roads where the cameras could be perceived as high-tech speed traps," Retting points out.

In Australia, for example, speed cameras are deployed where there's a pattern of serious crashes. Strategic planning expert Joseph P. Perone of Melbourne says "allegations of using speed cameras primarily as revenue raisers were certainly common in the early days, following the introduction of cameras in 1989, but their use is now widely regarded as an essential part of our road safety program."

The success of cameras to deter speeding is obvious from the amount of revenue raised

in Australia. According to Perone, money from speeding tickets "plateaued some time ago even though the total number of hours of [camera] operation increased significantly. This reflects a much higher level of compliance with posted speed limits."

U.S. experience is mixed: In the United States, speed cameras are used successfully in Portland and Beaverton, Oregon, where they're placed exclusively in neighborhoods and school zones. State law prohibits such cameras on freeways.

But the situation is different in Colorado. The Denver Public Works Department acquired three speed cameras, intending to deploy them in neighborhoods with verified complaints of speeding. Instead, the police department put the cameras on interstates and freeways, arousing concern from state legislators. Now the city is required to post warnings about camera use, and fines are limited to $40 and no points. The whole issue has wound up in litigation.

"What we can learn from this is how and where to deploy speed cameras," Retting points out. "We've got to accept the widespread skepticism about the cameras and avoid deploying them where they could be construed mainly as a way to help fill revenue coffers. Using speed cameras at high-crash locations and evaluating camera use carefully to see if it reduces crashes — then publicizing the results — could do a lot to boost the image of speed cameras as an effective supplement to police enforcement."

Delayed licensure in Connecticut leads to crash reduction among 16-year-old drivers

Introduction of learner's permit led to reduction in crashes

The best graduated licensing systems include a period of supervised driving followed by restrictions including limits on late-night driving and driving any time of day with passengers. Few states have enacted all of these provisions (see *Status Report*, Dec. 4, 1999; on the web at www.highwaysafety.org), but a partial graduated system is better than none at all. In Connecticut this proves true.

Before 1997, teenagers in Connecticut could qualify for full driving privileges soon after their 16th birthdays. The state didn't require a learner's permit of any duration before teens could get their unrestricted driver's licenses — only driver education or home training was needed. Beginning in 1997, new drivers were required to get learner's permits and hold them for six months (or four months with driver education). The practical effect has been to delay licensure, which provides more time for supervised practice driving and reduces the time 16 year-olds are allowed to drive unsupervised.

The result of this change in policy was an immediate reduction in crashes involving deaths and injuries among Connecticut's youngest drivers. This is the finding of a new Institute study conducted by Preusser Research Group.

Researchers compared rates of crashes involving deaths and injuries during 1997, the first full year under the new licensing requirements, with data from the previous year. The main finding was a 22 percent crash reduction among 16-year-old drivers — a change that research found unrelated to geographic region of the state, income level, or availability of driver education in the school system.

"The main difference was the introduction of a required learner's period for a set time duration that effectively delays access to a full license," Institute research vice president Susan Ferguson explains.

Graduated licensing

Percent changes in crash rates, 1996 (before graduated licensing) to 1997 (after)

16 year-olds	Connecticut	**-22%**
	New York	**-8%**
17 year-olds	Connecticut	**+6%**
	New York	**+2%**
18 year-olds	Connecticut	**+9%**
	New York	**+1%**

All Connecticut counties are included in the study. Six New York counties are included: Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester.

During the same time (1996 to 1997), crash rates didn't change significantly among 17-18 year-olds. Nor did rates change significantly among 16-18-year-old drivers in nearby New York counties, where licensing provisions stayed the same from 1996 to 1997. The study covers Connecticut's new requirements only during the first year when some 16 year-olds started the licensing process (others began in 1996). Researchers say they expect greater effects in subsequent years when all 16 year-olds have to get and hold learner's permits.

For a copy of "Teenage crash reduction associated with delayed licensure in Connecticut" by R.G. Ulmer et al., write: Publications, Insurance Institute for Highway Safety, 1005 N. Glebe Rd., Arlington, VA 22201.

Michigan parents support supervised driving requirement under graduated licensing

Contrary to some expectations, parents of beginning drivers in states with graduated licensing voice overwhelming support for the programs. According to numerous surveys, large majorities of parents say they like phasing in driving privileges slowly and don't find this represents an inconvenience.

Now a new study finds that parents in Michigan strongly support a provision that requires them to provide extended supervised practice to their beginning drivers. This is an important component of a comprehensive graduated licensing program that's excluded from the laws in many states.

In April 1997, Michigan implemented the first graduated licensing provision in the United States that requires a responsible adult, usually a parent or guardian, to supervise beginners for a minimum of 50 hours, including at least 10 hours of night driving. "In legislative deliberations on graduated licensing, there was concern expressed as to parental acceptance of this requirement," says Patricia Waller of the University of Michigan Transportation Research Institute, lead author of the study.

To learn how the requirement was viewed, the researchers surveyed 814 parents or other certified supervisors of beginning drivers younger than 18 who were applying for intermediate licenses in July 1998. This was the point at which the adult had to provide certification of supervised practice. Most parents reported taking more time to supervise their students' driving than the state required. Sixty-one percent of parents reported going beyond the requirements, supervising their beginners for 51 to 100 hours. Seven percent reported more than 100 hours. In contrast, 23 percent said they complied with the minimum of 50 hours, and 9 percent reported less supervised driving than required.

The average time parents reported supervising their students' driving practice is 75 hours. When asked how many of these hours took place at night, 72 percent of parents again reported going beyond the state's 10-hour requirement. On average, the parents reported supervising 21 hours of night driving.

Asked about their overall views on graduated licensing, parents in Michigan echoed the sentiments in other states where such licensing programs are in effect. Ninety-seven percent reported an overall "good" or "very good" experience.

Waller points out there were "serious reservations about requiring extended supervised practice because of the increased burden on the parents and decreased independent teen mobility. The overwhelming parental approval of Michigan's graduated licensing program, including the supervision requirement, indicates parents are willing to accept the responsibility for assisting their youngsters in the learning process."

"Parental views of and experience with Michigan's graduated licensing program" by P.F. Waller et al. will appear in the spring 2000 issue of the *Journal of Safety Research*.

Motorists in four countries highlight differences among drinking-driving laws

Support for tougher penalties is strong in all four countries

Motorists in Australia and Canada report being stopped and checked for alcohol far more frequently than motorists in the United States and the United Kingdom. Perhaps this is why a majority of motorists in Canada and, especially, Australia say police are doing enough to enforce drinking-and-driving laws.

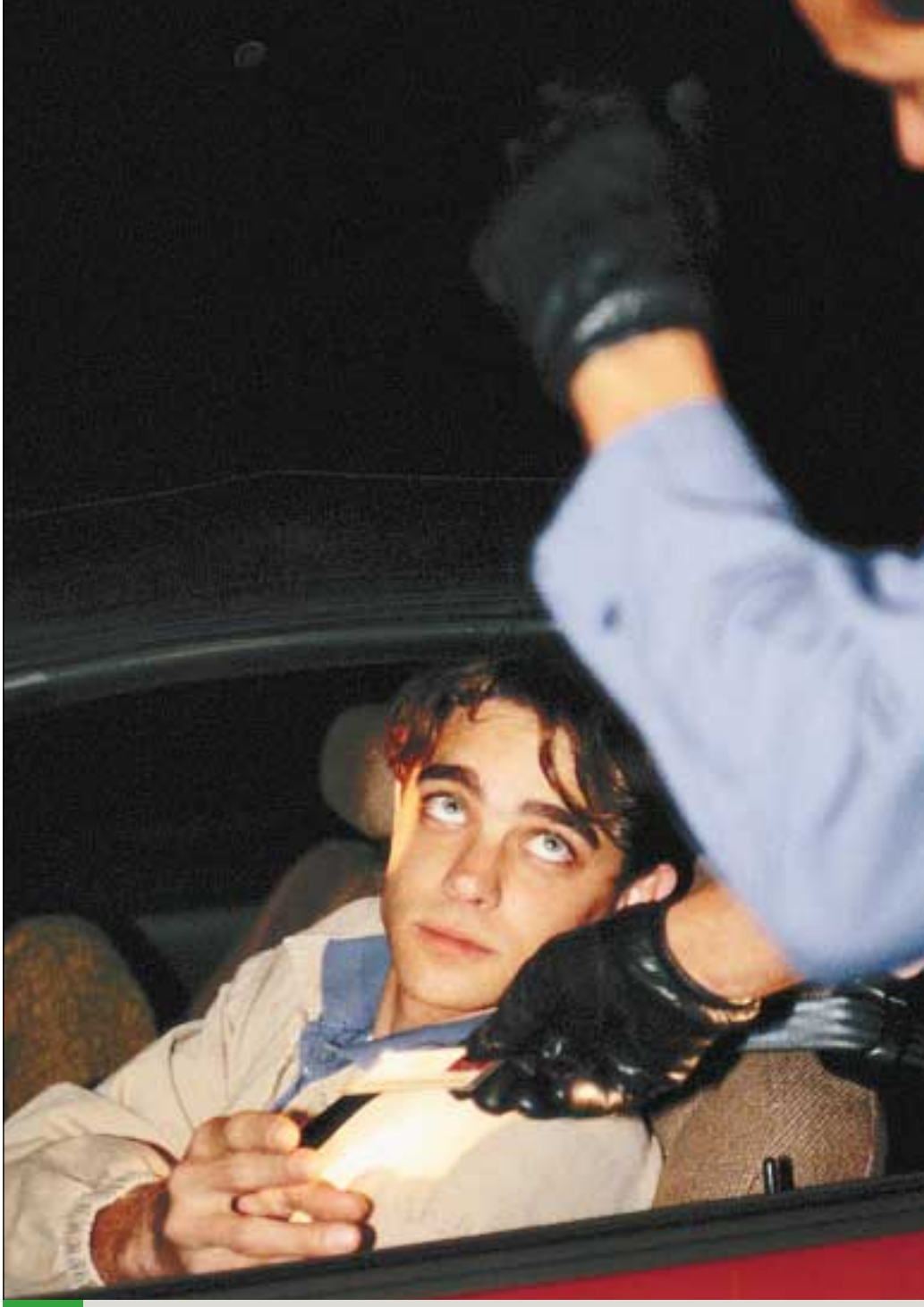
These are the findings of a recent Institute survey of more than 2,000 motorists, conducted by telephone across the four countries. Eighty-two percent of respondents in Australia reported being checked for alcohol, more than half said they'd been checked more than once, and 47 percent said this had happened on three or more occasions. In contrast, only 16 percent of motorists in the United Kingdom and 29 percent in the United States said they had ever been checked for alcohol.

"The difference is Australia's extensive breath test program. Police can stop and check drivers randomly, but not in the other three countries," Institute senior vice president Allan Williams explains. In the United States and Canada, police must have a reason — for example, erratic driving — to check a driver for alcohol. Sobriety checkpoints are conducted in the United States and Canada but not in the United Kingdom.

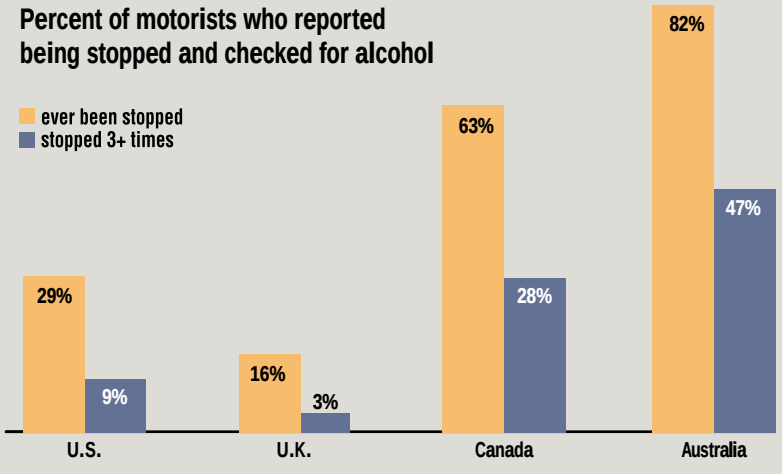
Neither random breath tests nor sobriety checkpoints are conducted in the United Kingdom, but there's another strong deterrent. Every motorist stopped for a traffic violation or involved in a collision is tested for alcohol.

The survey results "generally indicate public tolerance for vigorous enforcement of tough laws," Williams adds. "There's considerable support for tougher penalties in all four countries, even Australia."

For a copy of "Self-reported drinking and driving practices and attitudes in four countries and perceptions of enforcement" by A.F. Williams et al., write: Publications, Insurance Institute for Highway Safety, 1005 N. Glebe Rd., Arlington, VA 22201.



alcohol enforcement



Telephone survey about alcohol enforcement

	U.S.	U.K.	Canada	Australia
Police enforcement:				
doing enough to enforce	46	43	54	65
not doing enough	42	47	35	26
doing too much	5	4	4	4
Penalties for violators:				
about right	38	33	36	42
not tough enough	53	60	56	45
too tough	4	1	3	5

Results are shown as percentages of respondents answering "yes."

Zero tolerance enforcement varies with laws and practices among U.S. states

California leads with its enforcement-friendly approach to zero-tolerance law

All states now have zero tolerance laws prohibiting people younger than 21 from driving with any positive blood alcohol concentration (BAC). Congress made zero tolerance a national standard back in 1995, passing a law to withhold highway funds from states that didn't comply by October 1, 1998.

But zero tolerance laws aren't the same everywhere, and enforcement varies. A new Institute study shows that provisions in some states make it easier to issue charges when a zero tolerance offender is identified. But across the country, these laws have done little to change how police identify underage drinking drivers.

Researchers reviewed zero tolerance laws in all 50 states and identified 5 — California, Michigan, New Mexico, New York, and Virginia — with laws that appear to differ in how easily they can be enforced. Police in these states were interviewed and asked to describe their zero tolerance enforcement practices.

California's zero tolerance law stands out as one of the easiest to enforce, primarily because police can use the results from preliminary breath tests administered at the roadside as evidence of zero tolerance violations. In most other states, evidential tests are required. This means a driver must be detained or taken into custody and transported to a facility for testing — a time-consuming step that can impede enforcement.

In some states where evidential tests are required, there are further obstacles. Drivers in New Mexico can be tested only if they are suspected of DWI, so a zero tolerance citation can result only indirectly — for example, when a suspected underage DWI offender's BAC is below the legal limit by the time the test is given.

New York and California represent extremes in the amount of required paperwork. Both issue administrative license suspensions to zero tolerance offenders, but in New York the paperwork is so lengthy that police find enforcement rarely is worthwhile. In contrast, police in California use a streamlined form.

"Police have many priorities and limited time. They're more likely to spend their time on enforcement they feel is most productive," says Institute research vice president Susan Ferguson. "California's zero tolerance law respects these constraints, so police are more likely to enforce it."

Detection is a common problem: The detection of offenders is a universally weak link in enforcement. The procedures to find underage drivers with low BACs are no different from procedures to find DWI offenders with higher BACs. Police stop drivers who show signs of driving impairment or violate traffic laws. Then the officers look for behavioral or environmental cues to determine alcohol use.

Because young drivers with low BACs may not show signs of impairment, they can easily escape detection both on the road and during routine traffic stops. Add the fact that underage youths don't always drink where regular patrols would find them, and the chances of detection get even slimmer. Those who are identified usually have higher BACs and are cited for DWI, not zero tolerance.

Risks warrant enforcement: Detection is difficult, but no less critical. "Underage drivers with low BACs may drive well enough to elude detection, but that doesn't mean they aren't a danger on the road," Ferguson says. "In fact, studies show young drivers are much more at risk of a fatal crash than older drivers with the same blood alcohol concentration."

To increase the chances of detecting zero tolerance violators, police patrols and sobriety checkpoints should be conducted close to where underage people drink. By increasing the perception of enforcement, high-visibility efforts like checkpoints also serve to deter would-be offenders. Unfortunately, researchers have found that police don't often use these strategies.

For a copy of "Enforcement of zero tolerance laws in the United States" by Susan Ferguson et al., write: Publications, Insurance Institute for Highway Safety, 1005 N. Glebe Rd., Arlington, VA 22201.

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