

Department of Legislative Services  
Maryland General Assembly  
2013 Session

FISCAL AND POLICY NOTE

House Bill 166 (Delegate Cluster, *et al.*)  
Environmental Matters

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**Speed Monitoring and Work Zone Speed Control Systems - Daily Calibration and Video Recordings**

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This bill requires speed monitoring and work zone speed control systems to produce a video recording of each violation. It also requires the applicable law enforcement agency to include in a citation that the alleged violator may request the recording free of charge prior to trial. The bill further requires these systems to undergo a daily, rather than annual, calibration check.

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**Fiscal Summary**

**State Effect:** Assuming daily calibration checks render the operation of work zone speed control systems infeasible, Transportation Trust Fund (TTF) and special fund revenues decrease significantly beginning in FY 2014 from the elimination of civil fines distributed to the State Highway Administration (SHA) for the recovery of costs of operating work zone speed monitoring systems and to the Department of State Police (DSP) for roadside enforcement. TTF expenditures decrease significantly, but to a lesser extent, beginning in FY 2014. General fund expenditures for DSP increase significantly to replace the revenues provided by work zone speed control system fines. General fund revenues decrease from a reduction in the collection of court costs. District Court caseloads decrease significantly.

**Local Effect:** Except for jurisdictions that determine that the operation of speed monitoring systems is no longer feasible, expenditures increase significantly to conduct daily, rather than annual, calibration checks, and/or to procure equipment capable of producing video recordings. Revenues may be impacted to the extent that a jurisdiction is required to use a different form of technology or significantly alter speed monitoring system operations. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Minimal.

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## **Analysis**

**Current Law:** A recorded image is defined as an image recorded by a speed monitoring or work zone speed control system on a photograph, microphotograph, electronic image, videotape, or any other medium that shows the rear of a motor vehicle, at least two time-stamped images of the motor vehicle that include the same stationary object near the motor vehicle, and, on at least one image or portion of tape, a clear and legible identification of the entire registration plate number of the motor vehicle. A citation mailed to a person whose vehicle was recorded by a speed monitoring or work zone speed control system must include specified information, including a copy of the recorded image.

A speed monitoring or work zone speed control system operator must fill out and sign a *daily set-up log* that states that the operator successfully performed, and the device passed, the manufacturer-specified *self-tests* of the work zone speed control system before producing a recorded image. For work zone speed control systems, the operator must also state in the log the date and time when, and the location where, the system was set up. These logs must be kept on file and admitted as evidence in any court proceeding for a violation. A speed monitoring or work zone speed control system must also undergo an *annual calibration check* performed by an independent calibration laboratory. The laboratory must issue a signed certificate of calibration that must be kept on file and admitted as evidence in any court proceeding for a violation of this section.

### **Background:**

#### *Speed Monitoring Systems*

Chapter 15 of 2006 (HB 443 of 2005) authorized the first use of speed monitoring systems in the State, but it only applied to highways in school zones and residential districts in Montgomery County. Chapter 500 of 2009 (SB 277) expanded statewide the authorization for the use of speed monitoring systems in school zones. Chapter 474 of 2010 (HB 1477) authorized the use of speed monitoring systems in Prince George's County on a highway located within the grounds of an institution of higher education or on nearby highways under certain circumstances.

Unless the driver of a motor vehicle received a citation from a police officer at the time of the violation, the owner or driver of the vehicle is subject to a civil penalty if the vehicle is recorded speeding at least 12 miles per hour above the posted speed limit by a speed monitoring system in violation of specified speed restrictions in the Maryland

Vehicle Law. The maximum fine for a citation issued by a speed monitoring system operator is \$40. However, a local law enforcement or other designated agency operating the speed monitoring system may mail a warning notice instead of a citation.

Before activating an unmanned stationary speed monitoring system, a local jurisdiction must:

- publish notice of the location on its website and in a newspaper of general circulation in the jurisdiction;
- ensure that each school zone sign indicates that speed monitoring systems are in use in school zones; and
- for a speed monitoring system near an institution of higher education, ensure that all speed limit signs approaching and within the segment of highway on which the speed monitoring system is located include signs that indicate that a speed monitoring system is in use and that are in accordance with the manual and specifications for a uniform system of traffic control devices adopted by SHA.

A speed monitoring system may be placed in a school zone for operation between 6:00 a.m. and 8:00 p.m., Monday through Friday. Before a speed monitoring system may be used in a local jurisdiction, its use must be authorized by the governing body by ordinance or resolution adopted after reasonable notice and a public hearing.

As shown in **Exhibit 1**, a number of counties and municipal corporations currently implement speed monitoring systems. The Department of Legislative Services advises that, as to municipal corporations, the exhibit only reflects municipal corporations that have reported revenues to the Comptroller in fiscal 2012 and, therefore, may not include all municipal corporations that *currently implement* speed monitoring systems. Further, additional jurisdictions may be *considering* the use of speed monitoring systems at this time.

From the fines generated by a speed monitoring system, the relevant jurisdiction may recover the costs of implementing the systems and may spend any remaining balance solely for public safety purposes, including for pedestrian safety programs. However, if the balance of revenues after cost recovery for any fiscal year is greater than 10% of the jurisdiction's total revenues, the excess must be remitted to the Comptroller. According to data from the Comptroller, about \$2.2 million was remitted in fiscal 2011 from five municipal corporations, but no money was remitted in fiscal 2012. In addition, 17 municipal corporations and Baltimore City generated speed monitoring system fine revenues of about \$36.3 million, of which about \$21.7 million was retained by local jurisdictions for public safety programs after recovery of the costs of implementing the systems.

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**Exhibit 1**  
**Local Speed Monitoring System Enforcement**

<u>County</u>	<u>Municipal Corporation</u>
Baltimore	Bowie
Charles	Brentwood
Howard	Chesapeake Beach
Montgomery	Chevy Chase Village
Prince George's	College Park
Wicomico	Denton
Baltimore City	Forest Heights
	Fruitland
	Hagerstown
	Laurel
	New Carrollton
	Princess Anne
	Riverdale Park
	Rockville
	Salisbury
	Seat Pleasant
	Takoma Park

Source: Comptroller's Office; Department of Legislative Services

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*Work Zone Speed Control Systems*

Chapter 500 of 2009 also authorized State and local law enforcement agencies or their contractors to issue citations or warnings for speeding at least 12 miles per hour above the posted speed limit in highway work zones that are set up on expressways or controlled access highways where the speed limit is 45 miles per hour or greater.

A "work zone" is a segment of a highway identified as a temporary traffic control zone by a traffic control device in conformance with State specifications and where highway construction, repair, maintenance, utility work, or related activities are being performed, regardless of whether workers are present. A work zone speed control system may only be used while being operated by a work zone speed control system operator. The maximum fine for a ticket issued by a work zone speed control system operator is \$40. A conspicuous road sign warning of the use of speed monitoring systems must be placed at a reasonable distance from the work zone.

The Maryland Department of Transportation advises that work zones are inherently dangerous due to obstacles such as concrete barriers, narrowed lanes, and cones, all of which increase the risk of traffic accidents from speeding motorists. In these work zone accidents, about 85% of injuries are to the motorists, and about 15% of those injured are transportation workers according to the Federal Highway Administration. According to the National Work Zone Safety Information Clearinghouse, there were 576 fatalities in highway work zones nationwide in 2010, including 6 in Maryland.

Through fiscal 2012, slightly more than 1 million citations had been generated by work zone speed control systems, according to data from SHA. In fiscal 2012, the State's Automated Speed Enforcement Program generated just under \$15 million in revenues, down from about \$18.4 million in fiscal 2011.

### *Recent Media Scrutiny*

A number of bills related to automated enforcement have been introduced in the 2013 legislative session, in part due to recent media scrutiny of speed cameras statewide. The additional scrutiny has centered around two common criticisms of speed cameras: (1) that technical issues and insufficient review of recorded images result in erroneously generated citations; and (2) that the contracts with vendors are structured in such a manner as to establish an incentive to generate more citations and revenues, thereby casting doubt on the integrity of speed cameras as a safety measure.

### *Automated Speed Enforcement Efficacy*

Although a statewide review of speed monitoring programs has not been conducted, a combination of national and international studies and local program evaluations provide some insight into the level of effectiveness of such programs. According to the Insurance Institute for Highway Safety, several studies have documented reductions in crashes in the vicinities of speed cameras, including crashes that result in an injury or fatality. The most recent of these studies was a meta-analysis by the Cochrane Collaboration in 2010, which reviewed 28 individual studies and found reductions of between 8% and 49% for crashes, between 8% and 50% for crashes resulting in injury, and between 11% and 44% for crashes involving fatalities and serious injuries.

Locally, Prince George's County has evaluated its first year of speed monitoring system implementation and found that compliance with speed limits increased, on average, from about 20% of vehicles in certain locations before speed cameras were installed to about 67% after installation. This was based on an assessment of only seven locations, however. In Montgomery County, a 2009 review of its Safe Speed Program revealed that, on average, the number of citations generated by a speed camera decreased 78% between the first and twelfth months of the system's usage and that the average speed of

passing vehicles declined by 6%. Finally, an SHA review of its work zone speed monitoring systems revealed that work zone crashes decreased by 11.8% between 2009 and 2011; crashes involving an injury dropped by 16.8%; and the number of annual fatalities fell from nine to three.

**State Fiscal Effect:** SHA advises that it plans to cease operation of each work zone speed control system if a daily calibration check conducted by an independent laboratory is required as under the bill. Currently, the shipping of a work zone speed control system to an independent laboratory for the annual calibration check requires several weeks, and the calibration check requires several more days. If this process were required every day, rather than every year, then SHA would either need to procure many more systems or each system would be operated for a significantly limited period of time. Assuming SHA no longer operates work zone speed control systems, TTF revenues and expenditures decrease significantly.

A reliable estimate of the decrease in TTF and special fund revenues cannot be made due to uncertainty regarding the number of paid future work zone speed control system citations. As noted above, about \$18.4 million was collected in fiscal 2011 from the payment of citations generated by work zone speed control systems, and about \$15.0 million was collected in fiscal 2012. As anticipated, revenues have decreased as compliance has increased. However, the rate of the decrease in revenues in the future is uncertain without additional enforcement history of automated work zone speed control systems.

Additionally, a reliable estimate of the net revenues that are distributed to DSP for roadside enforcement cannot be made due to uncertainty regarding future costs of operating and administering the State's work zone speed control system program. However, work zone speed control systems generated net revenues of about \$13.9 million in fiscal 2011 and about \$8.0 million in fiscal 2012, after SHA recovered costs of about \$4.5 million in fiscal 2011 and \$7.0 million in fiscal 2012.

*For illustrative purposes only*, if work zone speed control system revenues remain constant in fiscal 2013, revenues decrease at the same rate between fiscal 2013 and 2014 as between fiscal 2011 and 2012, and program expenditures remain constant, then net revenues of about \$5.2 million would be distributed to DSP in the absence of the bill, but they are eliminated under the bill.

TTF revenues also decrease significantly, but to a lesser extent, from the reduction in fees collected from individuals seeking to remove an administrative flag placed on their vehicle's registration for refusal to pay speed monitoring or work zone speed control system fines. General fund expenditures also likely increase significantly to replace the special funds from work zone speed control enforcement in order to maintain current levels of roadside enforcement resources.

District Court caseloads decrease significantly due to the elimination of speed monitoring and work zone speed control system trials. The District Court advises that this reduction is likely to have a significant impact on its operations, though not necessarily a significant impact on expenditures. General fund revenues decrease from fewer court costs paid following speed monitoring or work zone speed control system trials. The District Court further advises that there were 17,931 speed monitoring or work zone speed control system trials in fiscal 2012.

**Local Fiscal Effect:** Similarly, one or more local governments may determine that the continued operation of speed monitoring systems is not feasible. For any such jurisdiction, local revenues decrease significantly and expenditures may also decrease significantly, except to the extent that additional law enforcement resources are needed to maintain roadside enforcement at existing levels. For example, Montgomery County estimated additional costs of about \$29.9 million annually to undertake daily calibration checks for each of its 82 systems. Additionally, Montgomery County and Baltimore City advise that their speed monitoring systems are not capable of producing video recordings as required by the bill and that, therefore, new technology needs to be procured at further additional cost.

Other jurisdictions utilize different technology and may be able to implement the bill with a less significant fiscal impact. For example, Howard County advises that additional costs exceed \$1 million annually to ensure calibration checks are conducted daily, not including the procurement of additional units to maintain continued operation during periods while systems are undergoing calibration checks. Baltimore County advises that, while the systems it operates do not currently produce video recordings, the systems have the capacity to produce video at minimal additional costs.

Several jurisdictions advise that the bill's requirement to conduct daily calibration checks may be interpreted in a less disruptive manner. For example, Baltimore, Charles, and Howard counties each advise that speed monitoring systems undergo daily calibration checks or function test procedures by local police. Baltimore County advises that, if the same type of calibration can be conducted on a daily basis, but by an independent laboratory instead of local police, then costs increase by a much less significant extent than if the systems are required to be calibrated in the same manner as is currently done on an annual basis. However, the Department of Legislative Services advises that the daily tests of systems currently undertaken by local police are self-tests required by statute, which must be entered into daily set-up logs, and are separate from the annual calibration checks that must be undertaken by independent laboratories at a significantly greater cost.

## Additional Information

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Anne Arundel, Baltimore, Charles, Frederick, Howard, and Montgomery counties; Baltimore City; the towns of Bel Air and Leonardtown; Maryland Department of Transportation; Comptroller's Office; National Work Zone Safety Information Clearinghouse; Federal Highway Administration; Insurance Institute for Highway Safety; Cochrane Collaboration; Department of Legislative Services

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