HB 526

Department of Legislative Services

Maryland General Assembly
2014 Session

FISCAL AND POLICY NOTE

House Bill 526 (Delegate Smigiel, *et al.*)
Environmental Matters

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

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.

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 2015 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 revenues decrease further from the reduction in collection of administrative fees collected following nonpayment of a citation. TTF expenditures decrease significantly, but to a lesser extent, beginning in FY 2015; any decrease in TTF expenditures is partially or fully offset by the payment of contract cancellation costs to the SHA vendor. General fund expenditures for DSP increase significantly to replace the revenues provided by work zone speed control system fines. General fund expenditures decrease further from a significant reduction in District Court caseloads. General fund revenues decrease from a reduction in the collection of fines and court costs.

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 are 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.

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 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 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 expanded statewide the authorization for the use of speed monitoring systems in school zones. Chapter 474 of 2010 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:

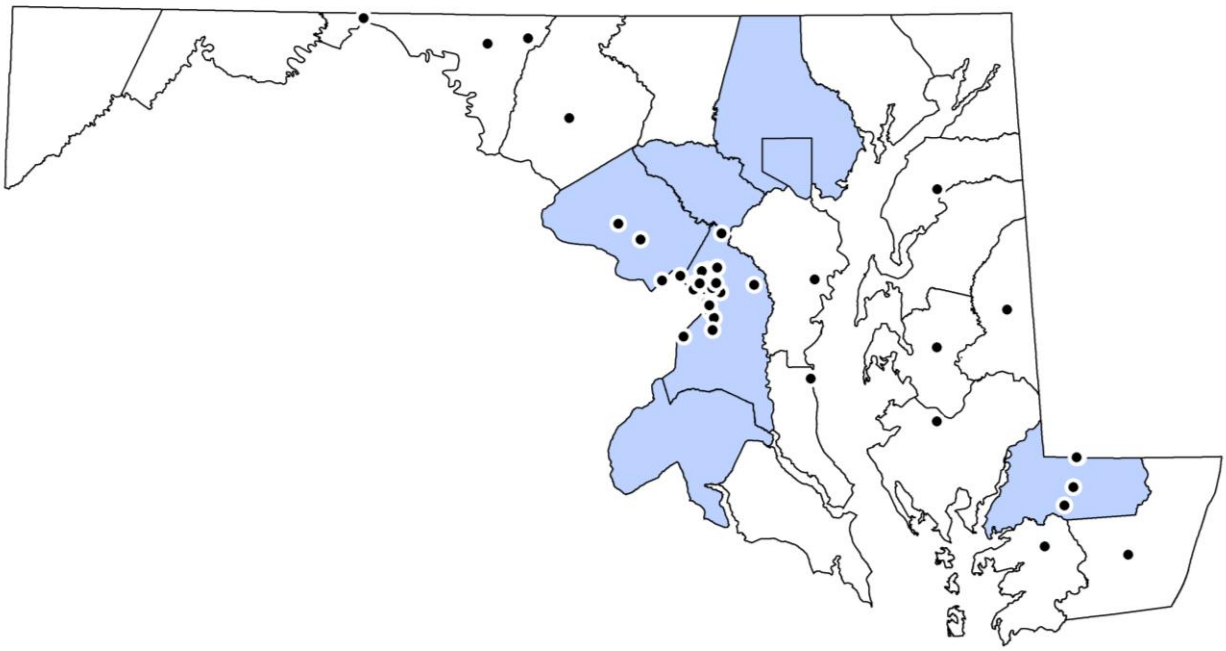
- publish notice of the location on its website and in a newspaper of general circulation in the jurisdiction;
- ensure that each school zone sign indicates that speed monitoring systems are in use in school zones; and
- for a speed monitoring system near an institution of higher education, ensure that 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 the map only reflects jurisdictions that have reported revenues to the Comptroller in fiscal 2013 and, therefore, may not include all jurisdictions 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 system 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 or 2013. In addition, 45 local jurisdictions generated speed monitoring system fine revenues of about $69.8 million, of which about $36.3 million (52%) was retained by local jurisdictions for public safety programs after recovery of the costs of implementing the systems.

Exhibit 1
Local Speed Monitoring System Enforcement



Note: ● represents municipal corporations that operate speed monitoring systems.
▭ Represents counties that operate speed monitoring systems.

Source: Comptroller's Office; Department of Legislative Services

In comparison, through fiscal 2013, about 1.4 million citations had been generated by work zone speed control systems, according to data from SHA. In fiscal 2013, the State's Automated Speed Enforcement Program generated about $16.4 million in revenues, less than the $18.4 million in fiscal 2011, but greater than the approximately $15.0 million in fiscal 2012.

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 2010 Federal Highway Administration data.

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Recent Media Scrutiny

A number of bills were introduced in the 2013 legislative session, in part due to media scrutiny of speed cameras in Baltimore City and several other jurisdictions. This 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 or purpose of speed cameras.

Automated Speed Enforcement Efficacy

National and international studies of automated speed enforcement, as well as local program evaluations, provide some insight into the level of effectiveness of such enforcement mechanisms. 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 recently evaluated its speed monitoring system implementation and found that compliance with speed limits increased during the study period, 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, according to data presented by the Maryland Association of Counties in February 2013, there have been reductions in the number of violations reported and the incidence of speeding measured by Baltimore City and Baltimore, Howard, and Montgomery counties.

More information is available on safety in work zones. Data from the National Work Zone Safety Information Clearinghouse shows that there were 609 fatalities in highway work zones nationwide in 2012, including six in Maryland. While the number of work zone fatalities in Maryland in 2012 is greater than the number in 2011, there has been a significant drop in the average number of fatalities in the three full years since the work zone speed control program began, as compared with the three full years prior to the program's commencement. Between 2010 and 2012, there was an average of 5.3 work zone fatalities per year in Maryland, a reduction of about 53% from the three-year average of 11.3 fatalities per year from 2006 through 2008. Nationally, there was also a similar, but much less significant, drop in work zone fatalities, with a 30% reduction in the three-year average between 2010 and 2012, as compared with the period from 2006 through 2008. Federal data also shows that work zone fatalities, *as a percentage of total traffic fatalities*, have dropped in Maryland, using three-year averages from 2006 through 2008 and 2010 through 2012. Again, the reduction in Maryland is greater than the similar, but less significant, reduction nationally in terms of the percentage of traffic fatalities occurring in work zones.

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 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. It should also be noted that SHA estimates that the expenditures may increase by about $2 million annually to produce videos of each citation; this cost is not incurred if SHA ceases to operate work zone speed control systems due to the daily calibration check requirement.

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 $16.4 million was collected in fiscal 2013 from the

payment of citations generated by work zone speed control systems, and about $15.0 million was collected in fiscal 2012. However, the amount of future revenues 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 average annual net revenues of about $10.3 million in fiscal 2012 and 2013, after average annual program cost recovery of about $7.2 million. Thus, *for illustrative purposes only*, net revenues of about $10.3 million in net revenues, which would be distributed to DSP in the absence of the bill, may be eliminated under the bill, assuming that program revenues and expenditures remain constant at the average of fiscal 2012 and 2013 levels.

SHA advises that, although termination of the current contract with its work zone speed control system vendor may carry costs of about $4.5 million, this cost may be fully offset by the eventual collection of all unpaid citations after the bill's effective date, which SHA estimates may be about $6 million.

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. For example, 29,259 administrative flags imposed on the driving records of vehicles that failed to pay a work zone speed control system fine were removed in fiscal 2013. Assuming the payment of $30 per flag, about $877,800 in administrative flag removal fees distributed to TTF may be eliminated in fiscal 2015, assuming that SHA no longer operates work zone speed control systems and that the number of removals remains at fiscal 2013 levels. TTF revenues decrease further, and potentially by several million dollars annually, if several local jurisdictions cease operating speed monitoring systems under the bill's restrictions. Any such reduction in the number of administrative flags is assumed to result in redirection of staff.

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, and associated administrative and personnel expenditures, may decrease significantly due to the elimination of speed monitoring and work zone speed control system trials. Additionally, general fund revenues decrease as fewer fines and court costs are paid following speed monitoring or work zone speed control system trials. The District Court further advises that there were 17,282 speed monitoring or work zone speed control system trials in fiscal 2013.

Local Fiscal Effect: Similarly, one or more local governments may determine that the continued operation of speed monitoring systems is not feasible. For example, the Maryland Association of Counties advises that the currently required annual calibration check entails shipping a speed camera to a testing laboratory where the camera is disassembled, analyzed, reassembled, and then shipped back to the jurisdiction; if this were required on a daily basis, then the bill is likely to prohibit operation of local speed monitoring programs. Additionally, Baltimore City advises that, under its previous speed monitoring program, the cost to calibrate its systems was about $10,000 annually; costs may, therefore, increase by about $364,000 annually for any future speed monitoring system in the city, assuming costs remain constant in the future. Finally, Montgomery County estimated additional costs of about $33.6 million annually to undertake daily calibration checks for each of its 92 systems.

Thus, for any jurisdiction currently operating a speed monitoring program that may no longer do so under the bill, local revenues decrease significantly; expenditures may also decrease significantly, except to the extent that additional law enforcement resources are needed to maintain roadside enforcement at existing levels.

Other jurisdictions utilize different technology and may be able to implement the bill with a less significant fiscal impact. For example, 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; the county advises that it has not used the video functionality due to concerns about reliability. Similarly, Montgomery County advises that video recording is captured in low resolution and with fewer frames per second than are available using two sequential photographic images.

Baltimore County also advises that the bill's requirement to conduct daily calibration checks may be interpreted in a less disruptive manner. For example, the county advises that speed monitoring systems undergo daily calibration checks or function test procedures by local police. 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 (potentially by roughly $25,000 annually) 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.

Circuit court caseloads may decrease minimally from fewer appeals of District Court decisions.

Additional Information

Prior Introductions: A nearly identical bill, HB 166 of 2013, received an unfavorable report from the House Environmental Matters Committee.

Cross File: None.

Information Source(s): Baltimore, Kent, Montgomery, Prince George's, Washington, and Worcester counties; Baltimore City; Town of Berlin; Comptroller's Office; Judiciary (Administrative Office of the Courts); Maryland Association of Counties; Maryland Municipal League; Department of State Police; Maryland Department of Transportation; National Work Zone Safety Information Clearinghouse; Insurance Institute for Highway Safety; Cochrane Collaboration; Department of Legislative Services

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