

**Department of Legislative Services**  
Maryland General Assembly  
2014 Session

**FISCAL AND POLICY NOTE**

House Bill 650 (Delegate Impallaria, *et al.*)  
Environmental Matters

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**Baltimore County - Use of Speed Monitoring Systems**

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This bill prohibits the enforcement of a school zone speed monitoring system citation in Baltimore County unless, at the time of the violation, the sign designating the school zone had timed flashing warning lights activated. A violation recorded by a school zone speed monitoring system in Baltimore County outside of the current Monday through Friday 6:00 a.m. to 8 p.m. period or when the school zone sign does not have timed flashing lights activated may only be enforced by the issuance of a warning. The bill also requires the placement of a school zone speed monitoring system in a location and manner that ensures that a recorded image generated by the system is made when the motor vehicle is between 300 and 350 feet past the sign designating the school zone.

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**Fiscal Summary**

**State Effect:** Transportation Trust Fund (TTF) revenues decrease, potentially significantly, beginning in FY 2015 assuming fewer administrative flag removal fees are collected following nonpayment of a speed monitoring system citation. TTF expenditures may increase minimally to the extent that the State Highway Administration (SHA) incurs costs related to the installation of school zone signs with timed flashing lights on State roads in Baltimore County and the costs are not reimbursed. District Court caseloads decrease due to a reduction in the number of payments to process and trials to handle, beginning in FY 2015. General fund revenues may decrease minimally due to fewer contested speed monitoring system citations.

**Local Effect:** Baltimore County revenues decrease – potentially, by more than \$3 million under the assumptions discussed below – to the extent that the county does not alter its protocol regarding the use of timed flashing lights on school zone signs; the actual revenue loss may be significantly reduced or eliminated if the protocol is changed to ensure timed flashing lights are activated at all times that speed monitoring systems are

in operation. Baltimore County expenditures increase significantly to the extent the county needs to install, operate, and maintain a system of secondary cameras to ensure that speed monitoring system citations are only issued when the timed flashing lights are activated and to adjust the location and orientation of speed monitoring systems to comply with the bill. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** Minimal.

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## Analysis

**Current Law:** A local authority may designate an area within a half-mile radius of a school as a school zone, which must have signs designating the school zone and may have other traffic control devices, including timed flashing warning lights. A local authority is defined as a political subdivision or a local board or other body that has authority under State law to enact laws and adopt local police regulations relating to traffic. A “school” is not defined by State law, but according to the SHA website, it is an accredited public, parochial, or private learning institution for one or more grades kindergarten through the twelfth grade.

A recorded image is defined as an image recorded by a speed monitoring 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.

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.

For the first 30 days after the first speed monitoring system is placed in a local jurisdiction, only warnings may be issued by any speed monitoring system.

## **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.

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.

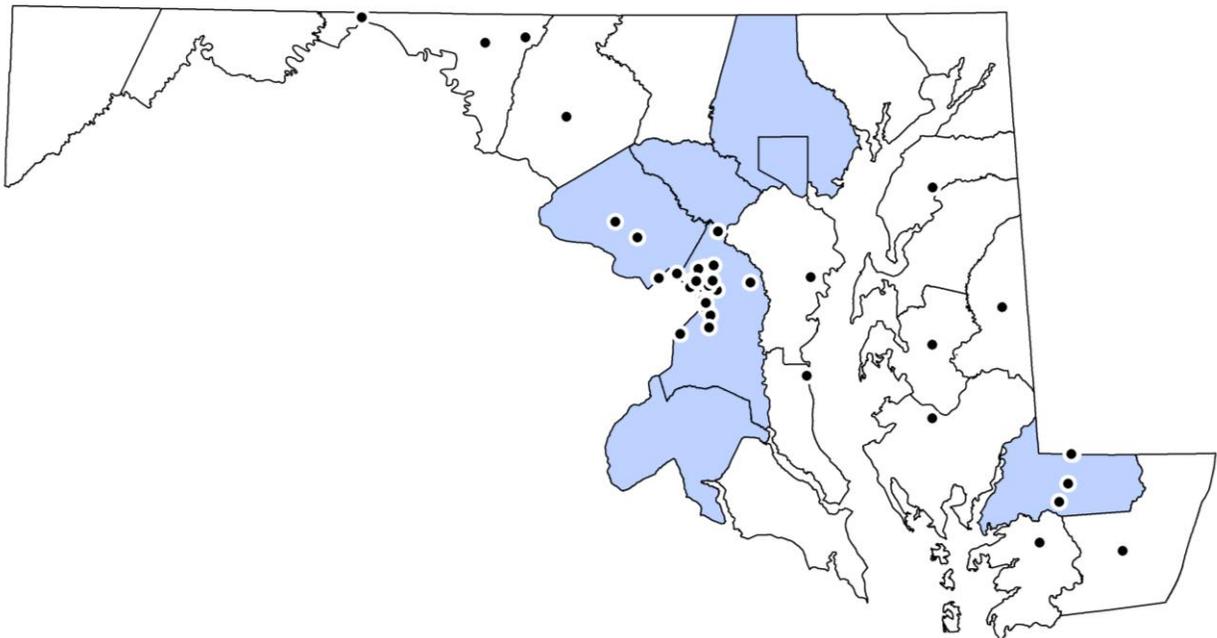
As shown in **Exhibit 1**, a number of counties and municipal corporations currently implement speed monitoring systems. The Department of Legislative Services advises that the map only reflects jurisdictions that have reported revenues to the Comptroller in fiscal 2013 and; therefore, may not include 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.

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**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

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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.

### *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 Revenues:** TTF revenues decrease, potentially significantly, beginning in fiscal 2015 assuming fewer speed monitoring system citations are issued in Baltimore County. The Motor Vehicle Administration (MVA) collects a fee of \$30 to remove an administrative flag placed on a vehicle's registration following the nonpayment of a citation. *For illustrative purposes only*, TTF revenues decrease by about \$216,300 on an annual basis, based on the following information and assumptions:

- 164,909 administrative flags were removed in fiscal 2013 based on speed monitoring system citations;
- Baltimore County generated about 5.1% of total speed monitoring system revenues in fiscal 2012;
- speed monitoring system citation issuance decreases by about 85.7% (six-sevenths) as the county issues citations for only 2 of the 14 hours allowed under State law; and
- future years remain constant at fiscal 2013 levels.

District Court caseloads decrease, likely minimally, due to a reduction in the number of payments to process and trials to handle, beginning in fiscal 2015, and general fund revenues also decrease minimally due to fewer contested speed monitoring system citations and the payment of court costs. Any such impact does not materially affect State finances or operations.

**State Expenditures:** TTF expenditures may increase minimally to the extent that SHA incurs costs related to the installation of school zone signs or timed flashing lights on State roads in Baltimore County and those costs are not reimbursed. SHA advises that the cost to install a school zone sign with timed flashing lights is between \$5,000 and \$10,000 per site; SHA advises that it is aware of one such location on a State road that may need to be altered to comply with the bill. If Baltimore County fully reimburses SHA for any installation costs, then the bill has no impact on TTF expenditures.

**Local Revenues:** Baltimore County revenues may decrease significantly to the extent that the county does not alter its protocol regarding the use of timed flashing lights on

school zone signs. The county advises that its engineering protocol governing the use of timed flashing lights dictates that the lights are only activated for a limited period of time to maximize their effectiveness in capturing the attention of drivers. The effectiveness of the flashing lights may be reduced as the duration in which the lights are used increases.

Assuming the county does not alter the protocol for the use of the timed flashing lights on school zone signs, speed monitoring system citation revenues decrease significantly. The county estimates that, based on current speed monitoring system revenues, if speed monitoring systems are only operated for the two hours per day while the timed flashing lights are activated, then revenues decrease by about \$3.6 million annually, or about \$2.7 million in fiscal 2015, which accounts for the bill's October 1, 2014 effective date.

The actual revenue loss may be significantly reduced or eliminated if the protocol is changed to ensure timed flashing lights are activated at all times that speed monitoring systems are in operation. However, the county advises that the protocol is designed to maximize safety around school zones; thus, the protocol is unlikely to change.

**Local Expenditures:** Baltimore County expenditures increase significantly to the extent the county needs to install, operate, and maintain a system of secondary cameras to ensure that speed monitoring system citations are only issued when the timed flashing lights are activated. The county estimates that the cost to install and maintain a secondary camera at all 35 speed monitoring system locations in the county is about \$4.2 million annually. It is unclear, however, whether this secondary system of cameras is necessary to provide such verification.

Additionally, the county has advised that expenditures may increase by a significant, but indeterminate, amount to adjust the location and orientation of each speed monitoring system to comply with the bill's requirement that a recorded image generated by the system is made when the motor vehicle is between 300 and 350 feet past the sign designating the school zone. The county further estimates that compliance with this provision results in the placement of speed monitoring systems at a considerable distance from the actual school property and areas of greatest pedestrian activity.

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## **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Baltimore, Montgomery, and Prince George's counties; Judiciary (Administrative Office of the Courts); Department of State Police; Maryland

Department of Transportation; Comptroller's Office; National Work Zone Safety Information Clearinghouse; Maryland Association of Counties; Insurance Institute for Highway Safety; Cochrane Collaboration; Department of Legislative Services

**Fiscal Note History:** First Reader - February 16, 2014  
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