

Action

MEMORANDUM

November 20, 2009

TO: County Council

FROM: Aron Trombka,^{AT} Senior Legislative Analyst
Office of Legislative Oversight

SUBJECT: Public Safety Committee Recommendations – OLO Report 2010-3: *Evaluation of Montgomery County's Safe Speed Program*

OLO Report 2010-3: *Evaluation of Montgomery County's Safe Speed Program* responds to the Council's request for OLO to examine the effectiveness of the County's speed camera program (known as the "Safe Speed" program). In addition, Report 2010-3 provides information for the Council's State-mandated report to the Maryland General Assembly on the effectiveness of the speed camera program. The Council approved release of Report 2010-3 on September 29.

OLO found that the County Police Department implemented the Safe Speed program in compliance with the requirements of State law. The report presents quantitative evidence that both the rate of collisions and the severity of collisions declined in the vicinity of speed camera enforcement locations since the inception of the Safe Speed program. A copy of the report executive summary appears on © 1 – 4.

PROGRAM ISSUES AND PUBLIC SAFETY COMMITTEE RECOMMENDATIONS

On October 13, the Public Safety Committee held a worksession to discuss the findings and recommendations of the report including the seven issues described below. Public Safety Committee recommendations appear in **bold**. The Chief Administrative Officer's comments on the OLO report and its recommendations appear on © 5 - 8.

1. Public Outreach and Community Involvement

A 2009 poll by the Insurance Institute for Highway Safety found that 64% of County residents support the use of speed cameras. Best practices research confirms that continued outreach and community involvement are essential to maintaining public support for the Safe Speed program.

The County designed and implemented a publicity campaign to educate the public on the purpose of the Safe Speed program and the location of enforcement zones. The County's ongoing efforts to maintain public awareness of speed cameras include: press releases; distribution of informational materials; "Photo Enforced" warning signs; a Safe Speed program website; and a dedicated customer service telephone line.

In addition, since 2006, the County has sought public input on speed camera site selection from the Citizens Advisory Board for Traffic Issues. The County also receives community input and feedback via the Safe Speed program website and the customer service telephone line.

The Public Safety Committee recommends the Council employ its oversight role to ensure continued public outreach and involvement in the speed camera program. OLO suggested that the Council should expect:

- Ongoing outreach to inform residents of the purpose of the Safe Speed program and the location of enforcement areas;
- Increased visibility of speed limit and speed camera warning signs;
- Ongoing assessment of roadway design to assure that speed limits in speed camera enforcement zones are properly established; and
- Continued consultation with citizen advisory bodies about the locations of new enforcement zones.

2. Accessibility of Program Financial Information

Providing clear and readily available information about program finances is important to maintaining public confidence, as well as the ongoing management of the Safe Speed program. At present, County residents cannot easily access information about the cost of the Safe Speed program and the revenues generated by speed cameras. Further, the details of how the County spends program revenues in excess of program costs ("net revenues") for public safety purposes are not currently reported in one place.

The Public Safety Committee recommends that the Council require that information on Safe Speed program expenditures, revenues, and the use of net revenues appear on the Safe Speed website and in future annual budget documents.

3. Cost to County for Processing Municipal Speed Camera Fines

In 2006, the County signed separate memoranda of understanding (MOU) with the City of Rockville and Chevy Chase Village governing the collection of fines, fees, and penalties generated from speed cameras. In April 2009, the County signed a similar MOU with the City of Takoma Park. As part of each MOU, the County Government agreed to process the payment of citations at no charge to the municipalities. The County has not entered into an MOU with the City of Gaithersburg but still processes the City's citations at no charge.

In July 2009, the Montgomery County Police Department (MCPD) initiated discussions with the municipalities regarding the processing of speed camera fines, fees, and penalties. MCPD staff report that the revised MOU will include similar provisions as the previous MOU, but will require municipalities to pay an administrative fee to the County for collecting and remitting of municipal speed camera citation fines, fees, and/or penalties.

The Public Safety Committee recommends the Council ask the Executive to negotiate memoranda of understanding that require that either:

- a. Municipalities process their own speed camera fines, fees, and penalties; or**
- b. The County recovers the full cost for collecting and processing speed camera fines, fees, and penalties for the municipalities.**

4. School Zone Hours – Operational and Public Outreach Issues

Before October 1, MCPD operated fixed speed cameras 24/7, and deployed mobile speed cameras from approximately 6 a.m. to 9 p.m., Monday through Saturday. At present, 22 of the County's 60 fixed speed camera sites and eight of the 59 mobile speed camera sites are located in school zones. Beginning on October 1, State law limited the operation of school zone speed cameras from 6 a.m. to 8 p.m., Monday through Friday. As a result, the County now has different hours of operation for cameras in residential districts (which are not affected by the time limitations) than for cameras located in school zones.

The Public Safety Committee asked Executive Branch staff to return in January to discuss operational and public outreach issues resulting from the new State restriction on school zone speed camera operating hours.

5. School Zone Hours – Speed and Collision Data Monitoring

Beginning on October 1, State law restricted the operation of school zone speed cameras to the hours of 6 a.m. to 8 p.m., Monday through Friday. However, evidence exists that speeding occurs outside of these hours. In the more than two year history of the Safe Speed program, nearly half of all citations generated by school zone speed cameras were for violations that occurred on weekends or on weekdays 8 p.m. and 6 a.m.

The prohibition against using speed cameras to enforce speed limits in school zones during overnight hours and on weekends could prompt some motorists to drive at increased speeds in enforcement zones. **The Public Safety Committee asked Executive Branch staff to return in January to present information about how the restricted hours of operation in school zones have affected vehicle speeds and the rate of collisions.**

6. State Law Changes and Program Finances

Operational changes mandated by the new State law could significantly reduce the number of citations issued and the amount of revenue generated by the Safe Speed program. Under the new State law:

- MCPD must raise the violation threshold from 11 to 12 miles per hour above the speed limit. If the proportion of drivers traveling at exactly 11 miles per hour above the speed limit remains consistent with past trends, then the program would generate nearly a third fewer citations per camera than previously anticipated.
- MCPD's operation of school zone speed cameras is limited to 6 a.m. to 8 p.m., Monday through Friday. If past trends hold, school zone camera citations could fall nearly 50% below projections.

These two changes could have a profound – and unanticipated – impact on Safe Speed revenues. All told, the new State law could reduce the number of speed camera citations and program revenue by about 40% below previous projections. A reduction of this magnitude could result in an FY10 shortfall of up to \$5 million in the County General Fund. **The Public Safety Committee has asked Executive Branch staff to return in January to present revised FY10 Safe Speed revenue projections.**

7. Report to the General Assembly

The 2006 State law mandates that the County Council report to the General Assembly on the “effectiveness of speed monitoring systems in Montgomery County” by December 31, 2009.

As part of the FY10 OLO work program, the Council directed OLO to prepare a report that describes the Safe Speed program, evaluates program administration, and measures the effect of speed cameras on vehicle speeds and collisions. Consistent with the project scope in the approved work program, the report prepared by OLO includes information over and above the State-mandated reporting requirement. As such, the Council must decide which elements of this report should be included in the report to the General Assembly.

The Public Safety Committee directed OLO to prepare a memorandum report that summarizes the major findings of the report for submission to the General Assembly. A draft copy of the memorandum report appears on © 9 – 13.

===== EVALUATION OF MONTGOMERY COUNTY'S SAFE SPEED PROGRAM =====

OFFICE OF LEGISLATIVE OVERSIGHT REPORT 2010-3

SEPTEMBER 29, 2009

SPEED CAMERA OVERVIEW

Speed cameras detect the speed of motor vehicles using radar or laser, and photograph vehicles exceeding a preset speed enforcement threshold. The primary objective of a speed camera program is to improve public safety by reducing the frequency and severity of collisions. The National Highway Traffic Safety Administration reports that higher vehicle speeds are associated with increased risks of collision and more severe pedestrian injuries.

Speed camera programs tend to engender both support and complaints from the community. Commonly cited objections to speed cameras include privacy and due process concerns, and the perception that the goal of a speed camera program is to raise revenue rather than increase public safety.

Montgomery County is among 48 jurisdictions and the District of Columbia that have implemented speed camera programs. A public opinion survey conducted this year by the Insurance Institute of Highway Safety (IIHS) found that 70% of the Montgomery County drivers surveyed agreed that speeding was a problem on residential streets. In addition, 64% supported the use of speed cameras on residential streets, an increase from the 58% who had supported speed cameras before the County launched its program.

THE COUNTY'S SAFE SPEED PROGRAM

Montgomery County began implementing the Safe Speed program shortly after State authorizing legislation took effect in February 2006. The current program uses speed cameras to photograph vehicles traveling 11 or more miles per hour above the speed limit on selected residential streets or school zones with a maximum speed limit of 35 miles per hour.

The County's Safe Speed program uses a combination of fixed speed cameras and mobile speed camera vans. At the start of the program in May 2007, the Police Department (MCPD) deployed mobile speed cameras to 18 enforcement sites in the County. The first fixed speed cameras were installed in September 2007. At present, the Safe Speed program operates at 60 fixed and 59 mobile enforcement sites.

The County implemented the Safe Speed program in compliance with the State law's requirements. Specifically, as mandated by State law, MCPD:

- Sets cameras to photograph the rear of vehicles traveling at least ten miles per hour above the speed limit in streets with a maximum speed limit of 35 miles per hour.
- Calibrates and tests speed cameras before operators begin detecting violations.
- Issues a \$40 speed camera fine (a non-moving violation that is not reported to insurance providers).
- Allows a person issued a citation to contest the violation in District Court.

The County hired a vendor to purchase, install, and maintain the speed camera equipment, process citations and payments, and conduct certain outreach and customer service functions. The County pays the contractor \$16.25 for each paid citation. The Office of the Attorney General has ruled that the terms of the County's contract comply with State law.

The County's public awareness campaign informed residents of the Safe Speed program. The County's ongoing speed camera public awareness campaign includes: press releases; "Photo Enforced" warning signs; a website listing the location of enforcement zones; a customer service telephone line; and warning citations at the beginning of the program. In addition, MCPD convened a Citizens Advisory Board for Traffic Issues to provide public input on in the speed camera site selection process. A 2009 survey conducted by IIHS found that 74% of County drivers know about the speed camera program.

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MUNICIPAL SPEED CAMERA PROGRAMS

Rockville, Gaithersburg, Chevy Chase Village, and Takoma Park operate speed camera programs under the State law that authorizes the County's Safe Speed program. The municipalities operate both fixed and mobile speed cameras with a combined total of 93 enforcement locations. Under current memoranda of understanding (MOU), the County processes citations from municipal speed cameras at no charge to the municipalities. In July 2009, County staff initiated discussions to renegotiate the terms of these agreements to include a "reasonable administrative fee" paid to the County.

SAFE SPEED PROGRAM FINANCES

Safe Speed program revenue has increased annually. In FY08, the first full year of the program, County speed cameras generated \$12.5 million in revenue; in FY09, the revenue increased to \$18.6 million. The approved FY10 budget includes estimated program revenue of \$29.4 million. The annual increases in program revenue correlate with the addition of new speed camera enforcement sites.

Contract costs are the largest component of the Safe Speed budget. The FY10 Safe Speed program budget is \$13.2 million. Vendor costs account for 84% of budgeted expenditures; personnel costs account for 15% of the budget and fund one uniform position (1.0 WY) and 33 civilian (29.8 WY) positions.

Net revenues fund public safety expenditures. In the FY10 approved budget, Safe Speed program revenues are estimated to exceed program costs by \$13 million. The budgeted uses of these net revenues include: funding police officers in schools and district stations (\$4.8 million); support of fire and rescue operations (\$2.9 million); and pedestrian safety initiatives (\$1.5 million).

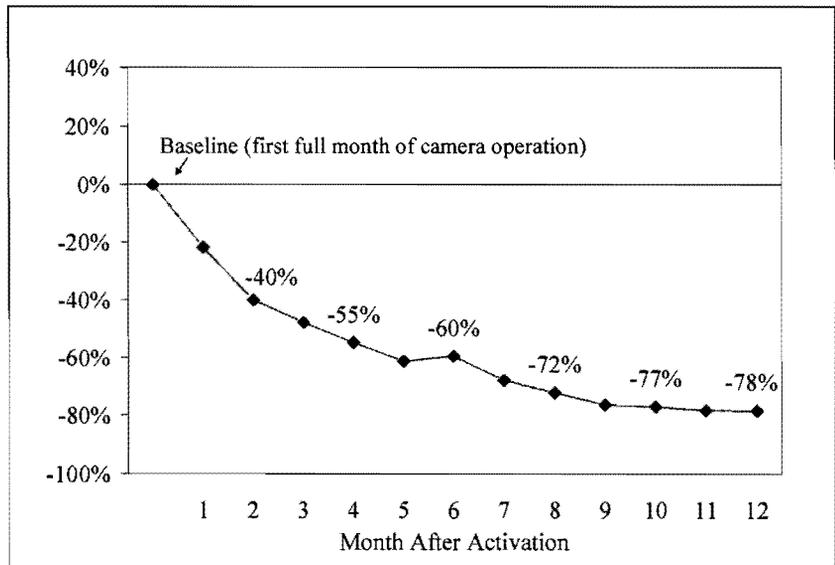
SPEED CAMERAS AND DRIVER BEHAVIOR

Few drivers repeatedly pass speed cameras at excessive speeds. Two-thirds of the more than half a million vehicles identified on speed camera citations between May 2007 and June 2009 received only one citation during that period. Only 2% of vehicles received more than five citations during this time. These data suggest that for most drivers, the \$40 fine effectively deters future speeding in speed camera enforcement locations.

Citations generated by speed cameras drop precipitously within the first year. At all fixed speed camera sites, the number of citations issued per month decreased sharply within one year after activation. On average, the number of citations generated by speed cameras decreased by 78% from the first full month of operation compared to the same month a year later.

A substantial number of speed camera citations are for vehicles traveling at the enforcement threshold. Since the program started, MCPD calibrated its speed cameras to generate citations for vehicles traveling 11 or more miles per hour above the speed limit. To date, 32% of citations have been for vehicles measured at exactly 11 miles per hour above the speed limit.

Average Percent Change in Speed Camera Citations/Month



Speeding occurs at all hours. A large portion of speed camera citations result from speeding that occurs during weekend and overnight hours. Nearly half of all citations generated by school zone speed cameras are for violations on Saturdays, Sundays, and weekdays between 8 pm and 6 am.

SPEED CAMERAS AND ROADWAY SAFETY

Vehicle speeds decreased near speed camera sites. After one year of automated enforcement, the speed of vehicles passing camera sites declined by an average of 6%. At 40 miles per hour, a decline of 6% equates to a 2.4 miles per hour reduction in average vehicle speed.

After one year of automated enforcement, the percent of vehicles exceeding the speed limit when passing camera sites was cut in half. During the first full month after camera activation, 25% of vehicles passed fixed speed camera sites traveling above the speed limit with 2% of vehicles passing at 11 or more miles per hour above the speed limit. One year later, the percent of vehicles traveling above the speed limit decreased to 13% with less than 1% of vehicles speeding at 11 or more mph above the speed limit.

**Vehicle Speeds Passing Fixed Speed Camera Sites:
First and Thirteenth Full Months after Camera Activation**

Percent of Vehicles Passing Camera Site:	First Month After Activation	Thirteenth Month After Activation
At or Below Speed Limit	73%	87%
1 to 10 MPH Above Speed Limit	25%	13%
11+ MPH Above Speed Limit	2%	<1%

Reported collisions near speed camera sites decreased after camera activation. An annual average of 462 reported collisions occurred within one half mile of camera sites during the four years preceding activation of the speed cameras. During the year following camera activation, a total of 329 reported collisions occurred near the same locations, a 28% decline from the annual rate before camera activation.

Percent Reduction in Annual Reported Collisions near Speed Camera Sites

Type of Collision	Number of Collisions		Percent Change (Before vs. After)
	Before Camera Activation (Four-Year Average)	After Camera Activation (One Year)	
Property Damage Only	252	203	-19%
Injury or Fatality	206	126	-39%
All Reported Collisions	458	329	-28%

In the vicinity of speed cameras, the annual number of reported collisions that involved an injury or fatality declined by 39% after camera activation. In contrast, reported collisions involving property damage only dropped by 19% after the activation of speed cameras. The higher rate of decline for injury/fatality collisions suggests that reduced speeds may have a greater effect on the severity of collisions than on the prevalence of collisions.

Rear-end Collisions. A common concern raised about speed cameras is that they cause drivers to brake suddenly before passing a camera site, which then results in rear-end collisions. However, the data show an opposite outcome. Compared to the average for the previous four years, rear-end collisions occurring within one half mile of speed camera sites decreased by 18% in the year after speed camera activation.

Collisions involving pedestrians/bicyclists. While the overall rate of collisions declined in the first year following activation of speed cameras, collisions involving pedestrians and bicycles did not experience a parallel decrease.

OLO RECOMMENDATIONS

NEW STATE LAW

On October 1, 2009, a new State law will go into effect. The 2009 State law includes three provisions that will have a notable impact on the County's Safe Speed program. Specifically, the new State law:

- Limits the operation of school zone speed cameras from 6 a.m. to 8 p.m. on weekdays.
- Restricts enforcement to vehicles exceeding the posted speed limit by at least 12 miles per hour.
- Requires the Council authorize each new speed camera installed in the County after October 1, 2009.

OLO RECOMMENDATIONS FOR COUNCIL ACTION

OLO's recommendations for Council action are aimed at refining and further improving the County's speed camera program.

1. **Ensure that public outreach and community involvement remain core aspects of the program.** The County should continue public outreach/involvement in the speed camera program to include:
 - Ongoing outreach to inform residents of the purpose of the program and the location of cameras;
 - Increased visibility of speed limit and speed camera warning signs;
 - Continued consultation with advisory bodies about the locations of new enforcement zones; and
 - Ongoing assessment of roadway design to assure that speed limits in speed camera enforcement zones are properly established.
2. **Require that revenue and expenditure data related to the Safe Speed program are readily accessible to the public on the County's website and in annual budget documents.** At present, County residents cannot easily access information about the cost of the Safe Speed program; the revenues generated by speed cameras; or how the County spends net program revenues.
3. **Request that the Executive revise its agreements with municipalities to recover the County's full cost for collecting and processing speed camera fees, fines, and penalties.** Currently, the County processes fines, fees, and penalties from municipal speed camera citations at no charge. This summer, the County has started the process of renegotiating the terms of these agreements.
4. **Provide policy guidance on operational and public outreach issues resulting from the new State limit on school zone speed camera operating hours.** When the new State law takes effect, the County will have different hours of operation for cameras in residential districts (which are not affected by the time limitations) than for cameras located in school zones. The Council should consider the trade-off between: public confusion that might come from a program that lacks uniform hours; and the safety consequences of limiting all speed camera hours to those in the school zones.
5. **Request that the Executive monitor driving speeds and collision rates to determine whether the restricted speed camera hours affect roadway safety.** Nearly half of all citations generated by school zone speed cameras were for violations that occurred during weekend and overnight hours. The new State law's restriction on school zone camera operating hours could result in increased vehicle speeds and collisions in these areas.
6. **Ask that the Executive adjust revenue projections to account for changes in State law.** Two changes in State law – the restriction on school zone speed cameras hours of operation and increase in the enforcement threshold to 12 miles per hour above the speed limit -- could result in fewer citations and a potential loss of up to \$5 million in what had been budgeted as General Fund revenue in FY10.

The 2006 State law mandates that the County Council report to the General Assembly on the "effectiveness of speed monitoring systems in Montgomery County" by December 31, 2009. To fulfill this responsibility, OLO recommends the Council direct staff to prepare a memorandum report from the Council to the General Assembly that summarizes the major findings of this OLO evaluation.



OFFICES OF THE COUNTY EXECUTIVE

Isiah Leggett
County Executive

Timothy L. Firestine
Chief Administrative Officer

MEMORANDUM

September 21, 2009

TO: Aron Trombka, Senior Legislative Analyst
Richard Romer, Legislative Analyst

FROM: Timothy L. Firestine, Chief Administrative Officer

SUBJECT: **Office of Legislative Oversight Report 2010-3, Evaluation of Montgomery County's Safe Speed Program**

I want to thank the Office of Legislative Oversight (OLO) for the opportunity to comment on its evaluation of the automated speed camera program contained in **Report Number 2010-3, Evaluation of Montgomery County's Safe Speed Program**. This report provides a detailed and comprehensive examination of the County's efforts to increase safety on our roadways through the utilization of this technology and considers the many factors contributing to the successes realized since the program's inception.

The effort necessary to produce such a work is a direct result of the coordination and collaboration between a great number of County employees and departments. This comprehensive document offers a complete assessment of the history of automated enforcement within the County while looking to the future of this program and its anticipated positive successes. County Executive Leggett understands and supports the importance of the automated speed camera program and has made the safe and efficient utilization of our County roads a priority of his Administration. As reflected in this study, 70% of our residents view speeding as a problem on our residential roadways.

As the County Council prepares to report to the General Assembly, it is vitally important that we continue to assess, improve and apply this life saving program to our roadways in an efficient and thoughtful manner. The primary goal of the program has always been to reduce speed in an effort to increase the safety of our drivers and pedestrians. Reduced speeds lead to fewer vehicle collisions and less severe collisions. With the change in the law effective October 1, 2009, this report makes a valuable contribution to public dialogue regarding of the implementation of this important program. The following is our response to each of OLO's recommendations.

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Recommendation #1: Ensure that public outreach and community involvement remain core aspects of the speed camera program.

Response: Concur

Education and community outreach continue to be a priority for the County Executive and the automated speed enforcement program. This initiative began with a vigorous effort to educate our residents to the dangers of speed and the planned application of automated enforcement within our borders. Information was shared with the media and signage was installed along all gateway roadways leading into Montgomery County as well as along those roadways identified for enforcement. In the past 30 months the County has gone to great lengths to address and educate residents, drivers, and pedestrians on the effects of speeding. The information within this report reflects the effectiveness and success of this effort as noted in the increase in resident awareness and support.

Today, the program continues to look for more and better ways to increase its effectiveness but always with the understanding that the support of our community is linked to our success and longevity. Several of OLO's recommendations were adopted by the County in 2007 at the inception of this program and continue to play a part in the program today. In addition to educational efforts throughout the community, program personnel are provided with a complete education of the program goals, objectives, policies and procedures. This week long 40-hour course of instruction is designed to provide our County and vendor personnel responsible for dealing with the public with the knowledge to carry out their jobs in an efficient and professional manner.

Current and future policies will continue to consider our community members and the impact of this program. An improved website offering information, statistics, details and information for the media is being planned in order to maximize the information and data shared with the public. Citation levels, roadway impact, planned deployments and a summary of the roadway volumetrics related to each camera site affecting our community are but a few of the details that will be highlighted.

Recommendation #2: Require that information on Safe Speed program expenditures, revenues, and the use of net revenues appear on the Safe Speed website and in annual budget documents.

Response: Concur

It is imperative that the improved website discussed above provide access to reports which document the progress and successes of this program. Reports that are easily accessible and accurately provide statistical data related to this program are a key facet of County Executive Leggett's responsive and accountable government.

Recommendation #3: Request that the Executive revise agreements with municipalities to recover the County's full cost for collecting and processing speed camera fees, fines, and penalties.

Response: Concur

Currently, State law requires the County to collect municipal speed camera fines. The Police Department calculates that approximately 40% of the transactions handled by the Montgomery County Automated Traffic Enforcement Finance Unit are attributed to payments for municipal citations. Under the new State law that takes effect October 1, municipalities that operate speed enforcement programs will be allowed to collect their own revenues. At the County Executive's direction, the County entered into discussions this summer with the four municipalities for which the County currently processes speed camera fines regarding the process for collecting those fines after October 1. Under the terms of a new Memorandum of Understanding prepared by the County, any municipality that chooses to have the County collect speed camera fines after October 1 will pay a charge to cover the County's full cost of collecting and processing fines.

Recommendation #4: Provide policy guidance to the Executive on the appropriate operational and public outreach response to the new State imposed limit on school zone speed camera operating hours.

Response: Concur

The roadways throughout the County have varied geographic characteristics and different associated speed limits. These limits are well marked and require a dynamic response to the changing roadway conditions, speed limits or other related challenges regardless of the presence of a speed camera. With the change in the law effective October 1, several program policies and criteria will be affected. The details of the automated speed enforcement program and the manner in which it is administered will change. The County Executive agrees that it is imperative that an effort be made to educate our residents about these changes.

Further, the County Executive recognizes our schools are much more than educational centers for our children. They are social hubs throughout neighborhoods that attract and facilitate exercise, sports, entertainment, meetings, social gatherings and much more. Our pedestrians and drivers travel through these school zones on a regular basis whether attending a function in one of our schools or not. It is for this reason that safety and thus speed limits must be enforced in order to succeed in our commitment to increased safety and reduced speeding. The automated speed enforcement program will continue to monitor vehicle speeds and volume in order to provide a comprehensive report detailing the impact of the changes to the law.

Recommendation #5: Request that the Executive monitor driving speeds and collision rates to determine whether the restricted speed camera hours affect roadway safety.

Response: Concur

The measurement of traffic patterns and characteristics continues to be a priority of this automated speed-enforcement program. As noted above this will continue in all areas, including school zones.

Recommendation #6: Ask that the Executive adjust Safe Speed revenue projections to account for changes in State law and identify budget modifications necessitated by reduced projected program revenue.

Response: Concur

Adjusted projections for the automated speed enforcement program are currently being developed. These projections are extremely complex but steps are being taken to examine the installation of camera sites, the current citation volume and the anticipated performance of these camera sites in the upcoming fiscal year.

Recommendation #7: Decide which portions of this evaluation should become the Council's report to the General Assembly on the effectiveness of speed monitoring systems in Montgomery County.

Response: Concur

The automated speed enforcement program has positively impacted Montgomery County. We look forward to further discussions with the Council to determine what should be included in the report to the General Assembly in an effort to accurately and completely describe our efforts and the results within Montgomery County.

Summary

Again, on behalf of the County Executive, I want to convey my appreciation to OLO for producing this professional report and for allowing me the opportunity to comment on its recommendations.

cc: Kathleen Boucher, Assistant Chief Administrative Officer
Chief J. Thomas Manger, Chief, Montgomery County Police Department
Joseph Beach, Director, Office of Management and Budget

**Report to the Maryland General Assembly
on the Effectiveness of the Montgomery County Speed Camera Program**

November 24, 2009

The 2006 State law authorizing the use of speed cameras in Montgomery County required that the Montgomery County Council report to the General Assembly on the “effectiveness of speed monitoring systems” no later than December 31, 2009.¹ As summarized below, there is substantial quantitative evidence that both speeding and collisions have declined in the vicinity of speed camera enforcement sites since the inception of the program.

This report, prepared by the Montgomery County Council’s Office of Legislative Oversight presents:

- I. A description of the County’s speed camera program;
- II. Findings on changes in driver behavior and roadway safety following implementation of the speed camera program; and
- III. A summary of a recent public opinion survey about speed cameras.

The information presented below summarizes the major findings of Office of Legislative Oversight Report 2010-3 (see page 5).

I. MONTGOMERY COUNTY’S SPEED CAMERA PROGRAM

Program Overview: In February 2006, the State law authorizing the use of speed cameras in Montgomery County went into effect. Montgomery County deployed its first speed cameras in May 2007.

As authorized by State law, the County uses cameras to enforce speeds limits on selected residential streets or school zones with a maximum speed limit of 35 miles per hour. From May 2007 through September 2009, County speed cameras generated citations for vehicles traveling 11 or more miles per hour above the posted speed limit. To comply with a State law that took effect on October 1, 2009, the Montgomery County Police Department (MCPD) recalibrated County speed cameras to generate citations for vehicles traveling 12 or more miles per hour above the posted speed limit.

The County’s speed camera program uses both fixed speed cameras and mobile speed camera vans. At present, the speed camera program operates at 60 fixed and 59 mobile enforcement sites. Fixed cameras are installed at a single location and provide on-going speed enforcement. The Police Department also has six vans equipped with mobile speed cameras that it rotates among several enforcement sites throughout the County. These vans allow for more widespread deployment of speed cameras but do not provide an on-going presence at any single site.

¹ Section 5, Chapter 15, 2006 Laws of Maryland.

The State law authorizing speed cameras in the County includes provisions that govern the administration and operation of the speed camera program. As mandated by State law, MCPD:

- Calibrates and tests speed cameras before operators begin detecting violations.
- Records at least two time-stamped photographs of the rear of a vehicle in violation passing a stationary object.
- Issues a \$40 speed camera fine, which is treated as a non-moving violation and is not reported to insurance providers.
- Allows a person issued a citation to contest the violation in District Court.

Public Outreach and Education: In March 2007, the County launched a speed camera public awareness and education campaign. The County's ongoing public awareness and education campaign has consisted of press releases; informational materials; "Photo Enforced" warning signs; a website; and a customer service telephone line. The Police Department website also lists the location of the camera sites.

The speed camera site selection process involves data collection and consultation with representatives from the community. In the spring of 2006, MCPD formed a citizens' advisory board to solicit the community input on the location of speed camera enforcement sites. After receiving community input, MCPD selects specific fixed and mobile speed camera enforcement locations.

II. DRIVER BEHAVIOR AND ROADWAY SAFETY

To assess program effectiveness, the Office of Legislative Oversight (OLO) conducted extensive data analysis to determine how vehicle speeds and collisions changed after the implementation of the speed camera program.² This analysis produced five major findings, summarized below.

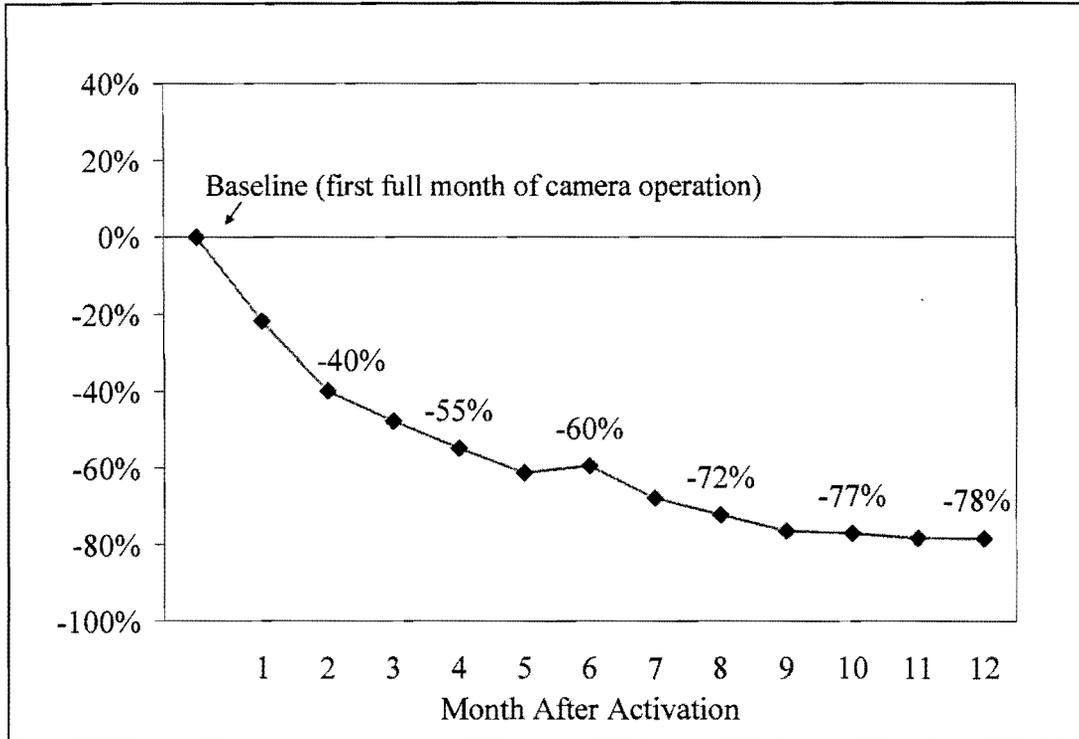
1. The number of citations generated by a speed cameras drops precipitously within the first year of camera activation.

At all fixed speed camera locations that have been active for at least 12 months, the number of citations issued per month decreased sharply within one year after camera activation. On average, the number of citations generated by speed cameras decreased by 78% from the first full month of operation compared to the same month a year later. This trend supports the premise that speed cameras influence driver behavior.

² A complete description of the methodologies used in the data analyses appears in Chapter VIII of OLO Report 2010-3 (see page 5 for the web link to the Report 2010-3). The reader should note that factors other than speed cameras, such as weather conditions, roadway conditions, and traffic volumes, may also have influenced the data trends presented in this report. While the data show a correlation between implementation of the speed camera program and changes in driver behavior, OLO cannot assert that the program was the sole cause for these changes.

The chart below displays the average percent change in the number of citations issued per month during the first year after camera activation.

Average Percent Change in Speed Camera Citations/Month



Source: Montgomery County Police Department; Office of Legislative Oversight

2. After one year of automated enforcement, the speed of vehicles passing the camera sites declined by an average of six percent.

Average speed data collected during the year after the activation of fixed speed cameras indicate that average driving speeds decline in the area of speed cameras after activation of the cameras. For fixed speed cameras installed by MCPD, the average speed of vehicles passing the site declined by an average of six percent one year after activation. At 40 miles per hour, a decline of six percent equates to a 2.4 miles per hour reduction in average speed.

3. After one year of automated enforcement, the percent of vehicles exceeding the speed limit when passing camera sites was cut in half.

During the first full month after camera activation, more than one-quarter of vehicles passed fixed speed camera sites traveling above the speed limit. About one out of every 50 vehicles (2%), passed the camera at 11 or more miles per hour above the speed limit. One year later, about half as many vehicles exceeded the speed limit at camera sites. After a full year of camera operation, the percent of vehicles traveling above the speed limit decreased to about 13% with less than one percent of vehicles traveling at 11 or more miles per hour above the speed limit.

The table below shows the percent of vehicles traveling above the speed limit during the first and 13th month after camera activation.

**Vehicle Speeds Passing Fixed Speed Camera Sites:
First and Thirteenth Full Months after Camera Activation**

Percent of Vehicles Passing Camera Site:	First Month After Activation	Thirteenth Month After Activation
At or Below Speed Limit	73%	87%
1 to 10 Miles Per Hour Above Speed Limit	25%	13%
11+ Miles Per Hour Above Speed Limit	2%	<1%

Source: Montgomery County Police Department; Office of Legislative Oversight

- 4. Total reported collisions within half mile of speed camera sites decreased by 28% in the year after camera activation; collisions involving an injury or fatality declined by 39%.**

The MCPD maintains a data base of collision incident reports for collisions that require response or intervention by a police officer (“reported collisions”). An annual average of 462 reported collisions occurred within one half mile of camera sites during the four years preceding activation of the speed cameras. During the 12 months following camera activation, a total of 329 reported collisions occurred in the same locations, a 28% decline as compared to the pre-activation annual rate.

Percent Reduction in Reported Collisions near Speed Camera Sites

Type of Collision	Number of Collisions		Percent Change (Before vs. After)
	Before Camera Activation (Four-Year Average)	After Camera Activation (One Year)	
Property Damage Only	252	203	-19%
Injury or Fatality	206	126	-39%
All Reported Collisions	458	329	-28%

Source: Montgomery County Police Department; Office of Legislative Oversight

In the vicinity of speed cameras, the annual number of reported collisions that involved an injury or fatality declined by 39% after camera activation (as compared to the average for the four years that preceded camera activation). In comparison, reported collisions involving property damage only dropped by 19% after the activation of speed cameras. The higher rate of decline for injury/fatality collisions suggests that reduced speeds may have a greater effect on the severity of collisions than on the prevalence of collisions.

5. Implementation of the speed camera program did not coincide with an increase in rear-end collisions.

A common concern raised about automated enforcement is that speed cameras could lead to an increase in the frequency of rear-end collisions as a result of drivers suddenly decreasing speed before passing a camera site. However, the data from Montgomery County show an opposite outcome. Specifically, for speed cameras that had been active for at least one year, the combined number of rear-end collisions occurring within one half mile of the site decreased by 18% in the year after speed camera activation as compared to the annual average for the four years immediately prior to activation.

III. PUBLIC OPINION

A 2009 survey of Montgomery County drivers found that a majority support the use of speed cameras. The survey of 800 drivers conducted by the Insurance Institute for Highway Safety found that:

- 70% of survey respondents agreed with the statement that speeding was a problem on residential streets;
- 64% of survey respondents supported the use of speed cameras on residential streets; and
- 72% of survey respondents who were aware of the speed camera program said that it had caused them to reduce their vehicle speeds.

IV. ADDITIONAL INFORMATION

The information in this report is excerpted from Office of Legislative Oversight Report 2010-3, *Evaluation of Montgomery County's Safe Speed Program*, released by the Montgomery County Council on September 29, 2009. OLO Report 2010-3 includes:

- An overview of the use of speed cameras in other jurisdictions;
- A detailed description of the Montgomery County speed camera program (including program revenue and expenditure data);
- A description of speed camera programs operated by municipalities in Montgomery County; and
- Analysis of data relating to speed camera citations, roadway speeds, and the occurrence of collisions.

OLO Report 2010-3 is available online at: <http://www.montgomerycountymd.gov/olo>. For further information on OLO Report 2010-3, please contact Aron Trombka of the Office of Legislative Oversight at (240) 777-7897 or aron.trombka@montgomerycountymd.gov.

For more information on the Montgomery County speed camera program, please contact Captain John Damskey of the Montgomery County Police Department at (301) 840-2881 or John.A.Damskey@montgomerycountymd.gov