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January 19, 2010

Members of the Arizona Legislature

The Honorable Janice K. Brewer, Governor

Roger Vanderpool, Director  
Arizona Department of Public Safety

Transmitted herewith is a report of the Auditor General, A Questions-and-Answers document on the Department of Public Safety—Photo Enforcement Program. This document was prepared in response to a November 3, 2009, resolution of the Joint Legislative Audit Committee. This work was conducted as part of the sunset review process prescribed in Arizona Revised Statutes §41-2951 et seq.

Our questions-and-answers documents were created to provide answers to multiple questions on a particular subject area. We hope that these questions-and-answers documents will fill a need and provide you with timely and useful information on topics of particular interest.

My staff and I will be pleased to discuss or clarify items in the report.

This report will be released to the public on January 20, 2010.

Sincerely,

Debbie Davenport  
Auditor General

Attachment

## QUESTIONS and ANSWERS

### Summary

The Department's photo enforcement program began operating in October 2008. The program has 76 photo enforcement camera units on highways state-wide. These cameras take photos of vehicles exceeding the speed limit by 11 mph or more. If the Department can identify the driver, it notifies him/her of the offense by mail. Individuals can pay the fine, deny responsibility, or request a hearing. Projected revenue for the program's first year was \$90 million, but only \$37 million in fines was collected. Reasons include that detections decrease as motorists become aware of the program and change their driving behavior. Monies collected are used for program operations, and some revenue is deposited in the State General Fund—\$19 million as of October 2009. Surveys indicate that the majority of Arizonans support photo enforcement.



2010

### **Question 1: When did the Department of Public Safety's (Department's) photo enforcement program begin and what is its purpose?**

**The Department's photo enforcement program, which enforces speed requirements and provides traffic control, began operating in October 2008. However, the feasibility of implementing such a program was studied as early as 2005, and in 2007, the Department was involved in two pilot projects.**

In 2008, Arizona Revised Statutes (A.R.S.) §41-1722 established the Department's photo enforcement program with the stated purpose of enforcing speed requirements and providing traffic control, but the concept was studied and piloted earlier. In July 2008, the Department contracted with a vendor to construct and operate the state-wide speed photo enforcement system. The first units went into operation in October 2008. Prior to this, in 2005, the Arizona Department of Transportation initiated a research study on the technical feasibility of setting up a photo enforcement system on Metropolitan Phoenix freeways. As noted in this study, extreme speeding on freeways contributes to increased collision fatalities, injuries, property damage, and public safety costs. The study also noted that photo enforcement had been proven

effective in reducing speeding on city streets, but using this technology on freeways is technically more challenging and was largely untested. The study identified 12 ideal characteristics for a system to be effective, including the ability to identify both the driver and rear license plate, and to cover five traffic lanes in one direction. Based on detailed information from 6 vendors, the study found that most of these vendors could meet the majority of the characteristics, but none could meet all 12.

Following that study, the Department was involved in two photo enforcement pilot projects. Specifically, in July 2007, the Department entered into an intergovernmental agreement with the City of Scottsdale to continue operating the photo enforcement system that Scottsdale had established in January 2006 on its 8-mile section of the Loop 101 freeway. The Department operated this system until June 2008 when, according to department officials, construction in this section made it impossible to keep fixed camera units there. In addition, in August 2007, as part of a pilot project, the Department contracted with a vendor to operate two mobile photo enforcement units on state highways. According to department officials, one mobile unit operated solely in Pinal County because that county funded the project and was experiencing high collision levels, and the other operated on highways throughout the State. This pilot project ended when the contract ended in August 2009.

**Question 2: What are the components of the Department’s photo enforcement system, and how are they monitored?**

As of December 2009, the Department’s photo enforcement system consisted of 36 fixed and 40 mobile photo enforcement units operating on highways state-wide. The Department determines the locations for both the fixed and mobile units based on collision data and other factors, such as current or pending construction.

The Department’s photo enforcement system consists of fixed and mobile photo enforcement units operating on highways state-wide.<sup>1</sup> As of December 2009, there were 36 fixed photo enforcement units on freeways, all of which are located in Maricopa County (see textbox). The

Department’s contract allows for up to 120 fixed units. The Department, in collaboration with the Arizona Department of Transportation, determined the location of the fixed units based on several factors, including placing fixed units in areas where collision data showed a high number of speed-related injury and fatal collisions; and in transition areas where two or more freeways merge in order to slow traffic and reduce stopping distances and to allow motorists to more safely react to lane changes and merging traffic. The Department eliminated areas with current or pending construction as potential sites to avoid having to move the cameras during the construction process. A.R.S. §28-654 requires that at least two warning signs be placed ahead of a photo enforcement unit: one at more than 300 feet before the unit, and another at approximately 300 feet before the unit.

As of December 2009, 40 mobile photo enforcement units were in operation on highways state-wide, with approximately 21 units being

deployed in high-collision areas outside Maricopa County. The contract allows for up to 50 mobile units. According to department officials, photo enforcement program staff in each of its districts state-wide determine the weekly location schedule for the mobile units based on collision data from the Department’s database system and on observations by local officers indicating the need for a mobile unit in a specific area.<sup>2</sup>

**Photo Enforcement Fixed Unit Locations**

<u>Freeway</u>	<u>Number of Units</u>	<u>Direction</u>	<u>Location</u>
I-10	16	Eastbound	287th Avenue, Miller Road, Watson Road, 59th Avenue, 43rd Avenue, 31st Avenue, 15th Avenue, 16th Street
		Westbound	40th Street, 24th Street, 16th Street, Buckeye Road, 15th Avenue, 59th Avenue, 75th Avenue, 91st Avenue
SR-101	8	Northbound	Glendale Avenue
		Southbound	Olive Avenue, Bethany Home Road, Indian School Road, McDowell Road
		Eastbound	75th Avenue, 59th Avenue, 35th Avenue
I-17	6	Northbound	Thunderbird Road, Bell Road
		Southbound	Bethany Home Road, Indian School Road, 15th Avenue, 12th Street
SR-51	3	Southbound	Bethany Home Road, Highland Avenue, Thomas Road
US-60	3	Westbound	Alma School Road, Mesa Drive, Gilbert Road

Source: Auditor General staff analysis of information on the Department’s Web site at [http://www.azdps.gov/Services/Photo\\_Enforcement/Cameras](http://www.azdps.gov/Services/Photo_Enforcement/Cameras).

<sup>1</sup> As of December 2009, the Department’s photo enforcement system consisted only of speed enforcement units. However, its contract also enables the Department to deploy red light enforcement systems. Local Arizona communities are responsible for administering red light and speed photo enforcement systems on city streets or intersections (see Question 3, page 3 through 4). In some instances, sections of state routes, such as State Route 260 in Star Valley, fall under local jurisdiction.

<sup>2</sup> The Department divides its state-wide operations into 15 geographical locations, or districts.

Mobile units are also used in construction zones. The Department's mobile units have the same signage requirements as the fixed units.<sup>1</sup>

The Department and its photo enforcement system vendor share responsibility for monitoring the system. According to the Department's contract, the vendor is responsible for providing, installing, operating, and maintaining the equipment, including mobile unit vehicle maintenance. Photo enforcement equipment should be capable of operating 24 hours per day, 7 days per week, except when maintenance or repair is being performed, and each mobile unit must be deployed

a minimum of 425 hours each quarter. The vendor must provide weekly and monthly statistics to the Department regarding equipment failures. According to department officials, the vendor's employees check speed detection calibration on the fixed units monthly, and on the mobile units at the beginning and end of each shift. In addition, as part of its efforts to provide further oversight of its vendor, department officers conduct spot checks on mobile units to check speed detection calibration and system set-up requirements, including unit location, sign placement, and correct speed limit.

### **Question 3: How does the Department's photo enforcement program compare to other states' programs?**

Based on the Insurance Institute for Highway Safety's (Insurance Institute) photo enforcement system information, Arizona appears to have one of the most extensive speed photo enforcement programs. The Insurance Institute reports that there are 25 states, including Arizona and the District of Columbia, that allow for or have photo enforcement programs. Of the jurisdictions that allow speed photo enforcement, only Arizona and the District of Columbia have laws that specifically allow its jurisdiction-wide use, while the others either have no laws specifically allowing its use or laws that restrict where or how it can be used. In addition to these state efforts, there are almost 450 communities nation-wide that are involved in photo enforcement operations, including 14 within Arizona.

only, 1 allows for speed only, and 11 states, including Arizona and the District of Columbia, allow for both red light and speed photo enforcement programs (see textbox).

#### **States and District with Photo Enforcement Programs**

##### Red light

Alabama, California, Delaware, Florida, Georgia, Missouri, New York, North Carolina, Pennsylvania, Rhode Island, South Dakota, Texas, and Virginia

##### Speed

Massachusetts

##### Red light and speed

Arizona, Colorado, District of Columbia, Illinois, Iowa, Louisiana, Maryland, New Mexico, Ohio, Oregon, Tennessee, and Washington

Source: Insurance Institute for Highway Safety, Highway Loss Data Institute. (2009, September). Automated enforcement laws. Retrieved September 18, 2009, from [www.iihs.org](http://www.iihs.org).

Arizona appears to have one of the most extensive speed photo enforcement programs. According to the Insurance Institute's information, of the 12 states and the District of Columbia that allow for speed photo enforcement programs, only Arizona and the District of Columbia have laws that specifically provide for its use state-wide or jurisdiction-wide.<sup>2</sup> Of the remaining 11 states, 3 have no laws specifically addressing its use, and 8 have laws that

As of September 2009, according to the Insurance Institute's Web site, 25 states and the District of Columbia allow for or have red light and/or speed photo enforcement programs. Of those 25 states and the District of Columbia, 13 allow for red light

<sup>1</sup> According to a department official, up to four signs are often deployed per photo enforcement unit in large construction projects to solicit a higher rate of voluntary compliance to the speed limit.

<sup>2</sup> A department official reported that Arizona's photo enforcement program was the first state-wide photo enforcement program run by a law enforcement agency.

restrict where or how speed photo enforcement can be used. For example, Colorado restricts the placement of its speed enforcement cameras to construction and school zones, residential areas, or areas adjacent to a municipal park; and Oregon limits its use to no more than 4 hours per day in any one location.

In addition to state photo enforcement efforts, many local communities have programs. According to the Insurance Institute, as of September 2009, almost 450 communities are involved in operating photo enforcement systems within the 25 states that allow for systems. In Arizona, besides the Department's program, 14 communities administer red light, speed, or a combination of photo enforcement programs (see textbox).

### Arizona Communities with Photo Enforcement Programs

#### Red light

Avondale, Glendale, and Peoria

#### Speed

El Mirage, Eloy, and Star Valley

#### Red light and speed

Chandler, Mesa, Paradise Valley, Phoenix, Prescott Valley, Scottsdale, Tempe, and Tucson

Source: Insurance Institute, 2009; information obtained from the Pinal County Sheriff's Web site on January 6, 2010, which indicates that in January 2009 Pinal County discontinued its program; and information obtained from the City of Eloy's Web site on January 6, 2010, which indicates that it intended to begin a photo speed enforcement program in July 2009.

#### **Question 4: How does the photo enforcement process work?**

**If a driver exceeds the posted speed limit by 11 miles per hour (mph) or more in a photo enforcement zone, the camera will flash and take photographs of the driver and rear license plate. If the Department can identify the driver, it will notify him/her of the offense by mail. Individuals can respond to the traffic violation notice by paying the fine, denying responsibility, or requesting a hearing.**

The Department's photo enforcement process involves multiple steps and other entities. The process begins when one of its fixed or mobile photo enforcement units is triggered by a driver who has exceeded the posted speed limit by 11 mph or more. The system photographs the vehicle's driver and the rear license plate. Then the Department's photo enforcement vendor ensures the photos are clear. If either the driver or license plate photo is not clear because of issues such as sun glare or another vehicle obstructing the picture,

the process stops. During the program's first year of operation, according to vendor data, more than 785,000 (or 47 percent) of the nearly 1.7 million detections were rejected.

If both the driver and license plate photos are clear, the Department and its vendor use driver's license information, including photos and/or registration information from Arizona and other states' motor vehicle departments, to identify the vehicle's driver, who may or may not be the registered owner. If a driver is identified, the Department's photo enforcement vendor mails him/her a notice for either a civil traffic offense, which is used when the driver was traveling at least 11 mph over the posted speed limit, or a criminal traffic citation, which is used when the driver's speed is considered excessive as outlined in law (see textbox, page 5).<sup>1</sup> In the program's first year, according to vendor data, approximately 3,500, or 0.4 percent, of the nearly 898,000 photo enforcement violations were for criminal violations. Criminal traffic offenses committed in Maricopa County require the Department to personally interview and provide individuals with criminal citations.<sup>2</sup> For all other Arizona counties, the Department mails the criminal traffic citation.

<sup>1</sup> If the driver's information is not available, such as when a person is speeding while in a rental vehicle, a notice will be sent to the registered owner requesting him/her to identify who the driver is.

<sup>2</sup> The Maricopa County Attorney requires that the Department contact, interview, and report to the County Attorney on each person charged with a criminal traffic violation.

## Examples of Speed Photo Enforcement Civil and Criminal Traffic Offenses in Arizona

Posted speed limit	Civil	Criminal
55 mph	66 to 85 mph	86 mph or more
65 mph	76 to 85 mph	86 mph or more
75 mph	86 to 89 mph	90 mph or more

Source: Auditor General staff analysis of the Department's photo enforcement program policy related to civil and criminal traffic offenses developed in accordance with A.R.S. Title 28, Chapter 3, Article 6.

Once the driver receives notice of a civil or criminal offense, he/she has several options:<sup>1</sup>

**Driver may pay fine**—The driver can take responsibility for the civil or criminal traffic offense and pay the fine. The Administrative Office of the Courts contracts with a vendor to collect and process all of the fines. Depending on court jurisdiction, the fine can be paid in person, by telephone, on the Internet, or through the mail. A civil traffic violation costs \$181.50, which includes a 10 percent surcharge for the Clean Elections Commission, and it does not add any points to the driver's license. However, effective September 30, 2009, for commercial driver's license holders, the court shall transmit records of these violations to the Arizona Department of Transportation, which uses this information to add points to the driver's license and subsequently to determine whether to suspend or revoke the license. According to statute, an accumulation of 8 or more points within a 12-month period shall result in requiring the driver to attend traffic survival school or his/her driver's license being suspended. The monies collected from civil traffic violations are deposited in the Photo Enforcement Fund and subject to legislative appropriations for the program's operation (see Question 6, pages 9 through 12, for further details on the program's appropriations).

According to statute, a criminal speed traffic citation has a base fine of up to \$500, is subject to surcharges, which in some cases can more than double the base amount, and will add points to the driver's license if the violation results in conviction or judgment. In Maricopa County, the current fines, including surcharges, range from \$235 to \$460 depending on the miles per hour over the posted speed limit. According to the Administrative Office of the Courts, the base fine amounts for photo enforcement criminal citations are processed in the same manner as criminal speed complaints issued by a law enforcement officer and according to statute are deposited with the County Treasurer in the county where the violation occurred. The surcharges are also distributed according to statutory requirements.<sup>2</sup>

In the program's first year, according to vendor data, of the almost 653,000 payable notices of violations sent, approximately 246,000 individuals paid the fine. According to a department official, it does not consider all of the notices sent to be payable. For example, notices sent to registered owners whose information did not match the driver's, such as notices sent to rental car companies, are not considered payable because the registered owner has the option but is not required to report who the driver is.

**Individual may deny responsibility**—If the individual receiving the notice believes he/she was not the driver, he/she can send an affidavit stating he/she was not the driver along with a copy of his/her driver's license. According to the Insurance Institute for Highway Safety, of the 12 states and the District of Columbia that allow for speed photo enforcement programs, 3 states, including Arizona, hold the driver liable for the violation, 5 hold the owner liable, and the remaining 5 do not indicate whom they hold liable for the violation.<sup>3</sup> The individual receiving the notice also has the option of notifying the Department who the driver was so that the Department can send the civil notice or criminal citation to the driver. During the program's first year, according to vendor data, of the more than 550,000

<sup>1</sup> According to a department official, the number of individuals reported under each option is not mutually exclusive because individuals may first take one action and then another. For example, an individual may be counted as requesting a hearing in one month and then be counted again in a later month if he/she pays the fine.

<sup>2</sup> A department official indicated that although the Department receives some monies from the extra fees associated with criminal photo enforcement traffic violations, by statute, none of these monies go to Highway Patrol, but rather support other activities, such as its crime lab.

<sup>3</sup> Insurance institute for Highway Safety, Highway Loss Data Institute. (2009, September). *Automated enforcement laws*. Retrieved September 18, 2009, from [www.iihs.org](http://www.iihs.org). The Insurance Institute's information does not comment on Arizona's practice to hold the driver liable, so auditors also used department information such as its business rules and sample traffic speed citations.

notices sent to registered owners who could have been the driver, almost 349,000 individuals identified other drivers. Of the more than 347,000 registered owners whose information did not match the driver's, more than 102,000 identified the driver. If the Department confirms that the individual is not the driver based on the information submitted, and the individual does not indicate who the driver was, the process stops.<sup>1</sup> However, if the Department confirms that the individual is the driver based on the information submitted, the process will continue, and the individual will have to pay the fine or go to court. In the program's first year, according to vendor data, the Department rejected the claims of 765, or 0.2 percent, of the nearly 349,000 individuals who could have been the driver but declared they were not.

**Individual may request a hearing**—The individual can request a hearing to contest the civil or criminal traffic offense. The justice court in the county where the speeding violation occurred will hold the hearing. During the program's first year of operations, according to vendor data, more than 348,000 individuals requested hearings or ended up in court by not taking any action.<sup>2</sup> If at the hearing the court determines that the individual is not responsible, the process stops. On the other hand, if the individual is found responsible for a civil violation, he/she must pay the fine, and may have his/her license revoked or suspended if he/she holds a commercial driver's license. In addition, the court has other options available for criminal citations, including adding points to or suspending the individual's driver's license, and in some cases allowing the driver to attend defensive driving school. Once the fine is paid and other court requirements are met, the process stops. However, if the individual fails to appear at the court hearing or pay the fine, the court can take other actions, such as suspending the driver's license, or issuing an arrest warrant if the individual fails to appear for the criminal citation hearing. Further, the court may attempt to collect the fine through a collection agency or in cooperation with the Motor Vehicle Division by placing a hold on an individual's vehicle registration until he/she pays any unpaid traffic violation fees to the court or the court waives those fees.

If the individual does not take any of the previously listed actions, either the Department or the court will take additional actions:

**Civil citation will be issued**—If the individual does not respond to a civil traffic offense notice within 60 days of the photo enforcement speeding incident, the Department will send a civil citation. A civil citation requires the individual to now respond to the court. If the individual ignores the citation, the court will notify the Department that the individual needs to be process served (i.e., have the citation delivered to a responsible person at the individual's address of record by a contracted process server).<sup>3</sup> By law, civil citations have to be served within 90 days after the citation is mailed or they are dismissed. However, if the individual requests a hearing or is process served, but fails to appear in court, the court can take further actions such as automatically finding the driver responsible for the violation, suspending his/her driver's license for failure to appear, or sending the amount owed to collections. In addition, if the individual was process served, he/she would be subject to paying a \$40 process service fee. In the program's first year, according to vendor data, nearly 184,000 drivers were eligible to be process served because they had ignored the civil citation. Of those eligible to be served, almost 34,000, or 18 percent, were served.

**Criminal citation may be process served**—If the individual does not respond to an initial criminal citation, the Department will attempt to process serve (i.e., deliver directly to) the individual the criminal citation for up to a year, after which time it will be dismissed. If the individual has been served and ignores the criminal citation, the court may issue a warrant for his/her arrest and suspend his/her driver's license. In addition, the individual is subject to paying the \$40 process service fee if successfully served, whether or not he/she is found guilty of the criminal traffic offense, and any local court costs if he/she is found guilty. In the program's first year, according to vendor data, nearly 1,100 drivers, or 31 percent, of the almost 3,500 individuals issued criminal citations ignored the citations. Of those eligible to be process served, 163, or 15 percent, were served by a process

<sup>1</sup> According to a department official, its photo enforcement vendor does not have an automatic means for identifying the number of individuals who denied that they were the driver and did not nominate another driver or provided insufficient information to identify the driver.

<sup>2</sup> The vendor's data does not separately track those individuals who requested a hearing from those who ended up in court by not taking any action.

<sup>3</sup> According to a department official, as allowed, it has delegated its process serving responsibilities for civil citations to its photo enforcement vendor who subcontracts with another vendor. The person who was served the citation, received directly or through a responsible person at his/her home, pays a \$40 fee to the Administrative Office of the Courts, which covers the cost of this service.

service vendor. A department official reported that if the criminal speed violator fails to appear in court, for up to one year from the date of the violation, the

photo enforcement officers will continue to locate, serve, and possibly arrest him/her.

**Question 5: Has the program raised the revenues it was projected to raise? Why or why not?**

**Former Governor Napolitano's Office projected that the photo enforcement program would raise \$90 million during its first year, but the program raised only \$37 million. The program has not raised the projected revenues for various reasons, including fewer units in place than originally projected and that, according to the Department, detections decrease as motorists become aware of the program and change their driving behavior.**

Former Governor Napolitano's fiscal year 2009 budget documents projected that if 100 photo enforcement cameras were added on highways, first-year revenue from these cameras could provide \$90 million for department operations. In addition, the documents noted that photo enforcement would reduce collisions and injuries and the resulting economic burden on government, motorists, and passengers. Although the Governor's budget documents did not provide details of how this figure was determined, according to information from the Department and Joint Legislative Budget Committee staff, it appears that this projection was based on data from an initial photo enforcement program that the City of Scottsdale administered on its section of the Loop 101 freeway.

Actual revenues for the first year of the photo enforcement program were significantly less than initial projections. Specifically, based on department information, the program generated approximately \$37 million during its first year of operation, October

2008 to September 2009 (see Question 6, pages 9 through 12, for how this money was distributed).<sup>1</sup> In short, the revenue is less than projected because there are fewer paid violations than projected, in part because some individuals are ignoring their violations, resulting in the need to process serve more violations than can be processed within the established time frame (see Question 4, pages 4 through 7 for more information). In addition, there is less revenue than projected because there have been fewer violations than projected, for several reasons:

**Fewer units in place**—The initial projection was based on having a total of 100 cameras in place, but, according to department officials, in January 2009, the Department and Governor's Office mutually decided to limit the program to the 78 units in operation or in the installation process at that time because there were multiple bills before the Legislature about photo enforcement.<sup>2</sup> Some bills involved eliminating the program, or adding requirements to it. However, it is unknown whether the revenue projection would have been attained even with 100 units in operation.

**Detection issues underestimated**—Although it appears that the initial projection considered detection issues such as blurry photos, the extent of those issues may have been underestimated. According to the Department's photo enforcement vendor's data, in the first year of operation, more than 785,000 of the approximately 1.7 million detections (or 47 percent) were rejected. According to the Department, rejections occur because the driver or license plate cannot be identified because of issues such as sun glare, another vehicle blocking the speeding vehicle, poor picture quality, or motorists' efforts to block or hide their faces. The Governor's budget documents did not specify the number or percentage of unusable photos accounted for in its revenue projections.

<sup>1</sup> According to the Department, the amount of revenue generated from citations issued during the first year may be higher because the \$37 million in revenue does not include revenue that will be generated from pending court cases. According to the vendor, as of December 18, 2009, of approximately 500,000 citations filed into the justice courts state-wide, 67,000 (or 13 percent) are not yet disposed.

<sup>2</sup> A total of 78 units were in operation from February 2009 to August 2009 at which time two mobile units, operating under a prior contract, were removed because that contract ended. As of August 2009, a total of 76 units were in operation.

**Voluntary compliance by motorists**—According to department officials, as people become aware of the photo enforcement program, their driving behavior changes and they slow down in those areas, resulting in fewer violations and thus less revenue. For example, for two fixed units at busy locations on State Route 51, the number of detections increased from approximately 1,000 each when the units first were put into operation on October 31, 2008, to over 20,000 speed violations each by the following month (see Table 1). However, the number of detections for each unit declined significantly in December and has continued at a much lower level. Similar results are indicated for fixed units as a whole, as seen in Figure 1. For example, 10 fixed units went into operation in October 2008 followed by an increase in detections in November, and 26 units went into place by February 2009 with an increase in detections in March.

**Fewer detections by mobile units**—The Scottsdale photo enforcement program that was considered in the revenue projections that the Governor’s Office developed used only fixed units, whereas the Department’s program also includes mobile units. Department reports indicate that from October 2008 to September 2009, fixed units captured four times as many violations as the mobile units, even though there were more mobile units than fixed units. Department officials reported several reasons that mobile units capture fewer violations. Mobile units cover fewer lanes of traffic and are usually located on less-traveled highways than fixed units. In addition, the fully marked vehicles are more noticeable than the fixed units, and the signs indicating the presence of a mobile unit stand out more on the less traveled, open highways. According to the Department, while this negatively affects revenue, it increases voluntary compliance, which is the purpose of speed enforcement.

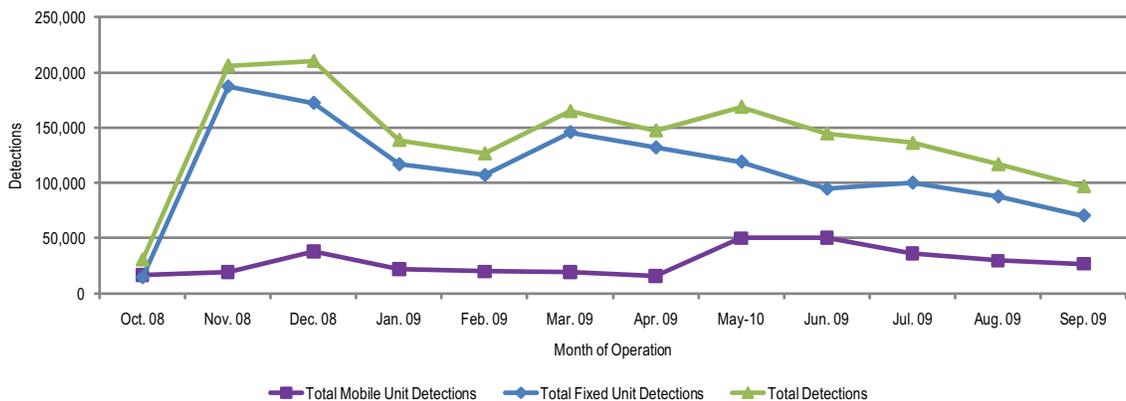
**Table 1:** Number of Detected Speed Violations for Two Selected Fixed Units  
October 2008 through September 2009

Location	Oct. 08 <sup>1</sup>	Nov. 08	Dec. 08	Jan. 09	Feb. 09	Mar. 09	Apr. 09	May 09	Jun. 09	Jul. 09	Aug. 09	Sep. 09
SR 51 Highland Avenue	1,040	21,027	8,216	4,734	4,662	5,458	4,769	4,779	3,647	3,261	2,457	2,495
SR 51 Bethany Home Road	1,363	23,595	5,002	4,904	4,811	4,975	5,308	3,860	4,480	6,592	3,613	2,576

<sup>1</sup> The units were put into operation on October 31, 2008.

Source: Auditor General staff analysis of data provided to the Department by its photo enforcement vendor for October 2008 through September 2009.

**Figure 1:** Number of Photo Enforcement Speed Violations Detected per Month  
October 2008 through September 2009



Source: Auditor General staff analysis of monthly photo enforcement data provided to the Department by its photo enforcement vendor for October 2008 through September 2009.

Further, mobile units are in operation fewer hours per day as an average of 4 hours per day is spent moving, setting up, calibrating, and sometimes repairing each unit.

According to the Department, fluctuations in the number of mobile unit detections are due primarily to their location and the amount of time they operate (see Figure 1, page 8, for mobile unit fluctuations). For example, the Department reported that when the mobile units were first dispersed by November 2008, they were placed in Metropolitan Phoenix where there is more traffic, resulting in a large increase in detections by December 2009. In February 2009, many of the mobile units were

moved to other counties state-wide where there is less traffic, resulting in fewer detections in the following months. Further, after a mobile unit operator homicide in April 2009, all units were temporarily retired while the vendor finished developing a remote operations center that allows it to remotely monitor mobile units from a central location without having to staff the units. Once completed in May 2009, the unmanned mobile units were again dispersed in Metropolitan Phoenix before moving to other counties. Further, the unmanned mobile units can operate for longer periods than manned units, resulting in a consistently greater number of detections in the third quarter of 2009.

### **Question 6: How are the monies collected from civil photo enforcement violations and citations distributed?**

**Monies collected from civil photo enforcement violations and citations are deposited in the Photo Enforcement Fund (Fund). The Department distributes monies from the Fund to the photo enforcement program vendor, the Administrative Office of the Courts, and itself, according to legislative appropriations. A 10 percent surcharge on the fines goes to the Clean Elections Commission, and monies remaining in the Fund in excess of \$250,000 at the end of each calendar quarter are deposited in the State General Fund. County justice courts are not appropriated monies directly from the Fund, but receive some fund monies through the Administrative Office of the Courts to help cover the costs they incur if drivers dispute the citations in court.**

According to A.R.S. §41-1722, monies resulting from civil traffic violations and citations issued through the state photo enforcement program are deposited in the Fund, are subject to legislative appropriation, and are to be used for program administration and personnel costs. The Department is responsible for distributing fund monies to the entities involved in operating the program. According to the Department, because the program is new and does not have a history of

revenue and expenditures, the Department distributes a percentage of all incoming revenue to each entity. The Department determined these percentages based on estimated program revenue, appropriation amounts, and contract requirements. In fiscal years 2009 and 2010, three entities received appropriations for their responsibilities related to operating the program.

**Appropriation for vendor's services**—The Department's photo enforcement vendor is responsible for installing, operating, and maintaining the photo enforcement equipment; generating and mailing notices of violation; providing court testimony; collecting and reporting violation data; providing training for department and court staff; and providing public service and support. In fiscal year 2009, the Legislature appropriated approximately \$20.4 million from the Fund to the Department for vendor payments, but as shown in Table 2 (see page 10) the vendor received only \$4.6 million because, according to its contract, it is paid per paid violation. The number of paid violations is less than initially projected for a number of reasons including that there have been fewer violations than projected, resulting in fewer notices and citations being issued than initially projected (see Question 5, pages 7 through 9, for more about initial projections for the photo enforcement program). The maximum to be paid to the vendor according to legislative appropriations for fiscal year 2010 remained the same, but the appropriations report noted that the Legislature intended to reduce the appropriation if payments to the vendor are less than the amount originally used to calculate the appropriation.

**Table 2:** Schedule of Revenues, Expenditures, and Changes in Fund Balances  
Fiscal Years 2009 (beginning October 2008) and 2010  
(Unaudited)

	<b>2009</b> (Actual)	<b>2010</b> (Estimate)
<b>Revenues:</b>		
Photo enforcement fines <sup>1</sup>	<u>\$23,950,123</u>	<u>\$36,439,100</u>
<b>Expenditures and distributions:</b>		
<b>Operating expenditures:</b>		
Department operating expenditures	2,093,650	2,173,000
Program vendor payments	4,644,324	7,066,100
Administrative Office of the Courts payments	<u>3,075,196</u>	<u>4,056,600</u>
Total operating expenditures	<u>9,813,170</u>	<u>13,295,700</u>
<b>Distributions:</b>		
Clean Elections Commission <sup>2</sup>	1,471,685	2,239,100
State General Fund <sup>3</sup>	<u>4,879,732</u>	<u>21,488,800</u>
Total distributions	<u>6,351,417</u>	<u>23,727,900</u>
Total expenditures and distributions	<u>16,164,587</u>	<u>37,023,600</u>
<b>Net change in fund balance</b>	7,785,536	(584,500)
Fund balance, beginning of year	<u>7,785,536</u>	<u>7,785,536</u>
Fund balance, end of year <sup>4</sup>	<u>\$ 7,785,536</u>	<u>\$ 7,201,036</u>

<sup>1</sup> Consists of fines collected for notices of violation and civil citations, the statutorily assessed Clean Elections Commission surcharge for notices of violation, and the \$40 process service fee that drivers pay when they are successfully served. The Clean Elections Commission surcharges associated with civil citations are not included because they are directly distributed by the courts.

<sup>2</sup> Consists of amounts the Department distributed to the Clean Elections Commission for the statutorily assessed Clean Elections Commission surcharge.

<sup>3</sup> In accordance with statute, unencumbered monies remaining in the Fund each quarter in excess of \$250,000 are distributed to the State General Fund.

<sup>4</sup> According to a department official, approximately \$250,000 of each year's ending fund balance is uncommitted. The remainder of the balances are committed to pay for expenditures that have not yet been paid, such as amounts owed to the program vendor for services already performed, or owed to the Clean Elections Commission and State General Fund. Amounts are distributed to the Commission and State General Fund throughout the year; however, timing differences affect the amounts distributed and create balances due to the Commission and State General Fund at various times during the year.

Source: Auditor General staff analysis of department-provided financial information for fiscal years 2009 (beginning October 2008) and 2010.

**Appropriation for court processes**—The Administrative Office of the Courts was appropriated \$4 million from the Fund in fiscal year 2009 to assist the courts in processing photo enforcement cases, and received approximately \$3.1 million of that appropriation. Although the appropriation was based on a projected number of citations that would be processed by the courts, a large amount of money was expended during the first year to set up the photo enforcement program process within the courts. According to the

Administrative Office of the Courts, it expended approximately \$2.4 million of the \$3.1 million that it received, as follows:<sup>1</sup>

- Almost \$1.1 million was used to upgrade network lines to accommodate electronic filing and disposition photo enforcement;
- \$745,000 was paid to a vendor for development and maintenance of a Web site and interactive voice response system to be used by motorists to pay their fines, and for vendor processing of payments that are mailed in;

<sup>1</sup> Laws 2009, 5th S.S., Ch. 1, requires the Administrative Office of the Courts to transfer \$700,000 in excess Photo Enforcement Fund monies to the State General Fund no later than June 30, 2010.

- \$82,000 was utilized for program administration including establishing new court rules and court training; negotiations and oversight of vendor services; and collaboration with the Department, the vendors, and local courts to implement the program; and
- More than \$472,000 was distributed to local courts to assist with their workload. According to the Administrative Office of the Courts, based on data provided by the Department, in fiscal year 2009 the photo enforcement program added approximately 283,000 citations to the courts' current caseloads, with 98 percent of those being in Maricopa County where all of the Department's fixed photo enforcement units are located.

The Administrative Office of the Courts' appropriation for fiscal year 2010 remained the same as for fiscal year 2009. According to the Administrative Office of the Courts, it will distribute funds to local courts at a rate of \$2 per filed citation and anticipates that at the current rate of citations being filed, by the end of fiscal year 2010 it will have distributed more than \$1 million to local courts. In addition, to help cover its justice courts' citation processing costs, estimated at \$21.60 per case, Maricopa County has established a court fee for photo enforcement citations. In November 2009, the Maricopa County Board of Supervisors voted to assess a photo enforcement fee of \$20, effective December 1, 2009. Individuals who pay notice of violation fines through the designated court Web site or by mail to the Department without filing a court complaint, and defendants found not responsible for a citation by the justice courts, will not be assessed the \$20 fee. Individuals who pay fines through the justice courts either in person or by mail will be assessed the \$20 fee. The monies resulting from this increase will be deposited in a justice courts photo enforcement fund to be used to support the direct and indirect costs associated with processing photo enforcement cases filed in Maricopa County Justice Courts.

**Appropriation for administration and oversight**—The Department also receives an appropriation to cover its costs for administering and overseeing the photo enforcement program. Its responsibilities include determining the location for the photo enforcement units; overseeing the photo enforcement vendor; identifying, contacting, and issuing citations to criminal violators; compiling files for and appearing in court for criminal violations; and appearing in court for civil violations when the

judge requires that an officer rather than a vendor employee attend. Department responsibilities also include evaluating whether to accept or reject a motorist's denial of responsibility for a violation; investigating and arresting, as appropriate, individuals who appear to be avoiding responding to citations; responding to public questions and concerns about the program; and conducting spot checks of photo enforcement units to determine correct speed calibration and system set-up requirements, including unit location, sign placement, and correct speed limit. According to the Department, it was not appropriated full-time employees (FTEs) for the program so it uses FTE authority from other areas according to operational need, while keeping within the limits of its appropriation. The Department reported that during its first year, from October 2008 to September 2009, the program operated with 11 FTEs.

Prior to the program's implementation, the Department estimated a first-year cost of \$8.7 million, which included 64 FTEs for activities directly related to the program and 10 FTEs for indirect activities, as well as other program expenditures. According to the Department, these estimates were based on a projected number of violations that 100 photo enforcement units would generate. About \$1.9 million of the \$8.7 million was included as start-up costs. However, for fiscal years 2009 and 2010 the Department was appropriated only \$2.2 million, or about 25 percent of that amount, to administer and oversee the program. The Department reported that although legislation and court rules allow for many of the operational tasks to be conducted by the vendor, the current appropriation does not allow for adequate oversight of all vendor activities, such as checking all units weekly to ensure system set-up requirements, including unit location, sign placement, and correct speed limit, or conducting more frequent speed detection calibration tests. The Department also believes that its current appropriation does not allow it to use enough staff to administer the program. For example, according to the Department, in December 2009 it had to void 6,000 civil photo enforcement notices of violation where the registered owner had denied responsibility and nominated another individual as the driver, because the time frame the Department has to work on reviewing those cases can be as short as 5 days by the time it receives the nomination and the 60

days from the violation occurring has elapsed. The Department requested an increase in its appropriation to \$2.9 million for fiscal year 2010, but the request was not granted.

**State General Fund deposits**—The State General Fund also receives photo enforcement monies. A.R.S. §41-1722 requires that monies remaining in the Fund in excess of \$250,000 at the end of each

calendar quarter be deposited in the State General Fund.<sup>1</sup> As shown in Table 2 (see page 10), during fiscal year 2009, approximately \$5 million was deposited in the State General Fund. Further, as of October 16, 2009, a total of about \$19 million was deposited in the State General Fund. In addition, the Clean Elections Commission receives monies from a surcharge on fines equaling 10 percent of the fine, or \$16.50.

### **Question 7: How many people who receive photo enforcement speed violations pay the fine?**

**During the photo enforcement program's first year of operation, approximately 246,000 violations were paid, which represents about 38 percent of the total payable violations sent.**

Approximately 246,000 of the nearly 653,000 payable photo enforcement violations sent, or 38 percent, were paid in the program's first year of operations.<sup>2</sup> The number of paid violations is impacted by the following factors:

**Different options available for resolving the violation**—Instead of paying the fine, the individual who receives the photo enforcement violation has other options available for resolving it. For example, in Arizona the driver is held liable for the violation, so if the individual receiving the notice is not the driver, he/she can indicate that he/she was not the driver and can (but does not have to) identify the driver so that the citation can be sent to the driver. During the program's first year of operations, according to the Department's photo enforcement vendor's data, of the more than 550,000 notices sent to registered owners who could have been the

driver, almost 349,000 individuals identified other drivers.<sup>3</sup> Of the more than 347,000 registered owners whose information did not match the driver's, more than 102,000 identified the driver. The individual can also request a court hearing to dispute the violation and more than 348,000 individuals requested hearings or ended up in court by not taking any action. According to vendor data, as of January 4, 2010, almost 60,000 civil court cases are still pending (see Question 4, pages 4 through 7, for more information on the options for resolving the complaint).

**Some violations ignored**—If an individual does not respond to his/her civil or criminal notice and the Department or its vendor does not successfully serve the individual within the allowed time frame, neither the Department nor the courts can take any further legal action, such as imposing a fine. However, the Department or its vendor will continue to attempt to serve the citation as long as the citation is valid. The Department pays particular attention to those individuals who have not responded to multiple violations (15 or more) or those who were cited for extremely high speeds (100 mph or more). The Department reported that during September through December 2009, there were more than 50 individuals who had active multiple citations ranging from 15 to 68 citations each, and almost 250 individuals cited for speeding at 100 mph or more.

<sup>1</sup> According to the Department, unencumbered monies remaining in the Fund in excess of \$250,000 at the end of each quarter are deposited in the State General Fund. Specifically, some monies in the Fund are encumbered to cover what is owed to an entity, for example, citations processed by the vendor for which it has not yet sent a bill.

<sup>2</sup> According to a department official, it does not consider all of the notices sent to be payable. For example, notices sent to registered owners whose information did not match the driver's, such as notices sent to rental car companies, are not considered payable as the registered owner has the option but is not required to report who the driver is.

<sup>3</sup> According to a department official, its photo enforcement vendor does not have an automatic means for identifying the number of individuals who denied they were the driver and did not nominate another driver or provided insufficient information to identify the driver.

## Question 8: Has the Department's photo enforcement program improved Arizona freeway safety?

More research is needed to determine the effect of the Department's photo enforcement program on Arizona freeway safety. A study of the effectiveness of photo enforcement on traffic safety in Metropolitan Phoenix is in progress. An earlier study conducted on a Scottsdale photo enforcement pilot project on its section of the Loop 101 freeway found that photo enforcement improved safety in that area. The Department also indicates that the program has other benefits such as assisting in felony crime investigations and allowing officers more time to focus on proactive enforcement activities.

**Metropolitan Phoenix photo enforcement study underway**—A study of the effectiveness of photo enforcement on traffic safety in Metropolitan Phoenix is underway. In October 2009, the Arizona Department of Transportation, in collaboration with the Department, contracted for a research study to be completed by September 2010. Specific objectives include:

- Documenting the impact of speed photo enforcement on traffic crashes on specific freeways within Maricopa County for periods before and after the fixed camera units were operational;
- Evaluating the effectiveness of the program from a system perspective as opposed to a single point along the system; and
- Evaluating the effectiveness of speed and/or red-light running photo enforcement at selected intersections.<sup>1</sup>

The study also plans to provide guidance on how to use the study's results to assess current photo enforcement unit locations and in planning future locations.

**Study of Scottsdale's photo enforcement project found improved safety**—Although the study related to the Department's program has not yet been completed, a study related to the City of Scottsdale's Loop 101 freeway photo enforcement pilot project found that photo enforcement improved safety in that area.<sup>2</sup> In November 2007, Arizona State University completed a comprehensive statistical analysis of Scottsdale's photo enforcement pilot project's impact on traffic safety, speed, speeding behavior, and travel time, and found, among other things:<sup>3</sup>

- Average speeds at the photo enforcement sites decreased by approximately 9 mph;
- Total number of crashes decreased 44 to 54 percent depending on the type of analysis;<sup>4</sup>
- Total number of injury crashes decreased 28 to 48 percent, depending on the type of analysis;
- Annual estimated economic benefits of the program ranged from \$16.5 million to \$17.1 million including medical, long-term care, and quality of life costs; and lost productivity and wages; and
- Mobility improved through travel time savings and improved travel time reliability, with the annual benefit of travel time savings ranging from a low of \$20,000 to a high of \$901,000.<sup>5</sup>

**Collision data analysis is needed**—Findings from the study being conducted in Metropolitan Phoenix will be helpful in determining whether the Department's photo enforcement program has been a factor in decreasing fatal and injury collisions. The Department's state-wide data indicates that the number of fatal collisions has decreased in three of four quarters and injury collisions have decreased every quarter since photo enforcement was implemented, when compared to the same quarters in the 2 years before the program's implementation (see Figures 2 and 3, page 14). However, similar decreases are evident when comparing quarters within the 2 years before photo enforcement. In addition, similar to the general downward trend in state data, national data shows a general downward trend in fatal collisions.

<sup>1</sup> According to an Arizona Department of Transportation official, no specific cities or sites have yet been chosen and it is uncertain whether this specific objective will be completed because several cities have been unable to provide the necessary pre- and post-data, such as annual traffic volume counts.

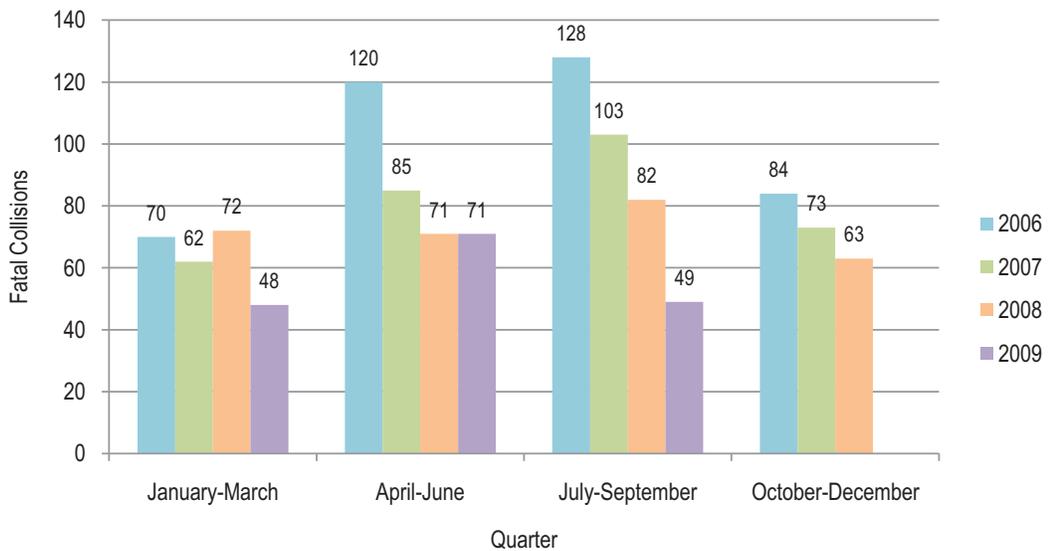
<sup>2</sup> From January 2006 through October 2006, the City of Scottsdale operated a speed photo enforcement demonstration project on an 8-mile segment of the Loop 101 freeway. The Scottsdale City Council reactivated the program from February 2007 to June 2007, and the program operated through an intergovernmental agreement with the Department from July 2007 to June 2008.

<sup>3</sup> Washington, S., Shin, K., & van Shalkwyk, I. (2007). *Evaluation of the City of Scottsdale Loop 101 photo enforcement demonstration program* [Final Report AZ 684]. Phoenix, AZ: Arizona Department of Transportation.

<sup>4</sup> The study looked at the reduction in crashes during nonpeak hours because of the limited expected influence of photo enforcement cameras during slow-moving peak periods.

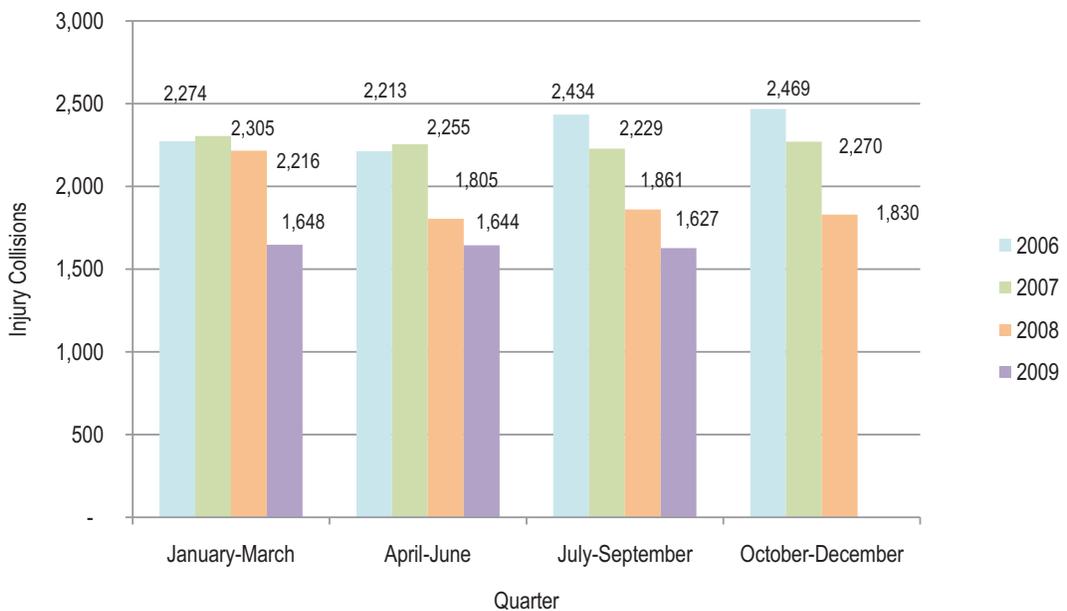
<sup>5</sup> Travel time savings were calculated assuming a \$15-per-hour value of travel-time savings for one-lane collision blockage, and \$20 per hour of value of travel-time savings for two-lane collision blockage.

Figure 2: Comparison of Number of Fatal Collisions State-wide by Quarter  
Calendar Years 2006 through 2009



Source: Auditor General staff analysis of data provided by the Department from its Department Automated Report Tracking (DART) database for calendar years 2006, 2007, 2008, and January through September 2009.

Figure 3: Comparison of Number of Injury Collisions State-wide by Quarter  
Calendar Years 2006 through 2009



Source: Auditor General staff analysis of data provided by the Department from its Department Automated Report Tracking (DART) database for calendar years 2006, 2007, 2008, and January through September 2009.

**Department reported other benefits**—According to the Department, along with improving safety, the photo enforcement program has other benefits. The Department reported that data from the photo enforcement program can assist in law enforcement activities. For example, if the Department is involved

in a high-speed pursuit that is approaching a photo enforcement area, its officers may terminate pursuit of the vehicle and instead obtain data related to the speeding vehicle and driver from its photo enforcement system to identify and help apprehend the suspect. Further, according to the Department,

it receives data requests related to felony crime investigations such as homicide, robbery, and burglary at least once per week. Moreover, the Department reported that, as the number of collisions has decreased, officers are able to spend more time on other proactive enforcement activities. For example, in its October 2009 media report the

Department noted that its officer activity data for the first 9 months of the photo enforcement program shows that in Metropolitan Phoenix and state-wide officers have conducted more traffic stops, made more total arrests, and arrested more impaired drivers and drug offenders than before the program's implementation.

### **Question 9: What is the public's perception of photo enforcement and how does the Department address the public's questions and concerns?**

**Both a 2009 and an earlier 2007 state-wide, research-based survey conducted to measure the public's perception of photo enforcement found that the majority of those interviewed supported photo enforcement. The Department addresses many questions and concerns about photo enforcement from the public through its Web site.**

In January 2009, a phone survey of 500 registered voters state-wide was conducted about photo-based traffic enforcement.<sup>1</sup> Findings from this study included:

**Most support use of photo enforcement**—The majority of individuals surveyed support the use of photo enforcement technology, but also think that most Arizonans oppose it. Sixty-seven percent of those interviewed supported the use of photo enforcement technology to catch speeders on city streets, and 61 percent supported its use to catch speeders on freeways in the cities. Even though the majority of those interviewed supported photo enforcement, 55 percent of those interviewed thought that most Arizonans oppose its use.

**Majority support continued use, including those who have received tickets**—Regardless of whether the individual surveyed had received a photo enforcement ticket, the majority of those surveyed support the Department's continued use of this technology. Sixty-three percent of those interviewed reported that the Department should continue to

use speed cameras to ticket drivers exceeding the speed limit by 11 mph or more. In addition, 55 percent of those interviewed who had received a red-light-running or speeding ticket as a result of photo enforcement reported that the Department should continue to use speed enforcement cameras.

Another state-wide survey conducted about 14 months earlier, and before the Department's photo enforcement program was in place, found similar results.<sup>2</sup> Specifically, a November 2007 phone survey of 800 heads of household throughout Arizona to measure attitudes about photo enforcement state-wide found that 72 percent of those interviewed supported the use of photo enforcement. Further, 75 percent of those interviewed who were living in Maricopa County supported photo enforcement. All of the Department's fixed photo enforcement units are located in Maricopa County. Likewise, even though the majority of those interviewed supported photo enforcement, 30 percent of those interviewed thought that most Arizonans oppose its use.

**Department Web site addresses public inquiries**—The Department responds to phone calls about photo enforcement and also addresses questions and concerns about the program through the photo enforcement page on its Web site at [http://www.azdps.gov/Services/Photo\\_Enforcement](http://www.azdps.gov/Services/Photo_Enforcement). The Department's Web site provides ways for the public to comment and ask questions regarding photo enforcement, including a general Questions-and-Answers page, a page where someone can enter his/her specific citation numbers and get information about the process, and a contact information page informing the public of where to e-mail comments or inquiries. The Department indicated that it responds to all the e-mails received, but due to a shortage of resources, has not tracked how many it has received related to

<sup>1</sup> Public Opinion Strategies. (2009). Arizona statewide survey: Key findings from a statewide survey of 500 registered voters in Arizona January 13-14, 2009. Retrieved December 16, 2009, from <http://www.azcentral.com/flash/photoradarsurvey.pdf>.

<sup>2</sup> Behavior Research Center, Inc. (2007). Photo-based traffic enforcement attitude study. Retrieved December 16, 2009, from <http://www.scottsdaleaz.gov/Assets/documents/photoradar/2007-Nov+Report.pdf>.

specific topics. According to the Department, from January 2008 to December 2009, it had received and responded to approximately 5,600 e-mails. All of the Department's Phoenix photo enforcement office's full-time employees are involved in

responding to these e-mails. According to a department official, the majority of e-mails that the Department receives are questions about the process for handling the notice of violation that the person received.

### **Question 10: What changes have been made to improve the program since its inception?**

**During the 2009 legislative session, various bills proposed eliminating the program or modifying various aspects of the program. In addition to a few legislative changes, the Department and its vendor continue working to improve the program's quality and operations.**

**Photo enforcement legislation proposed**—During the 2009 legislative session, there were several bills related to the photo enforcement program, including some to eliminate the program and others to strengthen program practices. For example, one bill sought to prevent the use of a state photo enforcement system on state highways to detect traffic violations, whereas another bill sought to change the photo enforcement signage placement requirements from two signs (one at more than 300 feet and one at 300 feet) to three signs (one each at 600, 300, and 100 feet) approaching a photo enforcement system. This same bill sought to prevent anyone from using recordings of persons innocent of any violation for any purpose.<sup>1</sup> Although none of these bills passed, during the 2009 legislative sessions, a few other changes related to the photo enforcement program were passed. For example, effective September 30, 2009, first responders such as ambulance and other on-duty emergency vehicles' drivers are exempted from photo enforcement violations; and for commercial driver's license holders, the court shall transmit records of these violations to the Arizona Department of Transportation, which uses this information to add points to the driver's license and subsequently to determine whether to suspend or revoke the license. Further, retroactive to June 30, 2009, the Legislature extended the exclusion of photo enforcement violations from court productivity

calculations, which are used to determine revenue for each court through fiscal year 2010.

**Department improving program operations**—In addition to legislative changes made to the program during 2009, the Department reported that it and its photo enforcement vendor are making operational improvements along the way that address employee safety, public concerns and communications, and the photo enforcement process.<sup>2</sup> For example, in January 2009, due to public concerns about the brightness of the photo flash, the Department worked with its vendor to fix this by switching from a white light to a red light flash. In November 2009, to improve public communications, the Department modified the notice of violation instructions to advise an individual who denies that he/she was the driver to contact the court on his/her scheduled court appearance date if he/she does not receive a dismissal notice from either the court or the Department. The notice had previously advised him/her that as long as he/she sent in his/her photo and affidavit, he/she need not take any further action. Further, in December 2009, the Department started sending reminder notices if the individual had not taken any action at 25 days from the violation date.

**Vendor making equipment and other changes**—The Department reported that its photo enforcement vendor is also making changes. For example, starting in May 2009, the vendor developed a remote operations center that allows it to remotely monitor and operate mobile units from a central location without having to staff the units. According to the Department, this process was underway before the vendor staff homicide in April 2009. The vendor reported that the switch to unmanned mobile units allowed it to reduce personnel by almost 50 FTEs, which saved approximately \$151,000 per month and almost tripled its mobile units' hours in service per day. However, the vendor also indicated that the

<sup>1</sup> The legislation does not specify or distinguish between the streaming videos or still photos that the photo enforcement system captures.

<sup>2</sup> A department official reported that it has no plans to expand the program until policymakers provide further direction.

unmanned units operate at a loss because extra vehicles are needed to operate the program, such as those used to transport personnel after the unit has been put in place, and the associated costs such as fuel, registration, and insurance. In addition, since May 2009, the vendor takes two photos of the speeding vehicle's license plate to help eliminate

the number of cases that are dropped because of unclear photos. However, the vendor reported that it does not yet have enough data to determine the impact of this change. Further, in August 2009, the vendor added an office located at the Department's main facility in Phoenix to allow the public a means for paying their fines in person.<sup>1</sup>

**Question 11: What could potentially happen if the DPS photo enforcement program were discontinued?**

**If the program were discontinued, the State and the Department may incur financial, safety, and operational impacts.**

The State may be liable for some photo enforcement vendor costs and would not receive any monies collected from civil photo enforcement traffic offenses if the photo enforcement program were discontinued. The contract ends in July 2010, but allows for three 1-year extensions after that time. If the contract were discontinued, although the State would not be liable for equipment costs because the vendor owns all the equipment, hardware, and software used to operate the program, and must remove that equipment within 120 days from contract termination, the State and the Department may incur costs related to resolving any outstanding violations. For example, the contract entitles the contractor to compensation for work in progress such as violations in process. In addition, a department official reported that the Department would still have responsibilities related to handling any outstanding violations. Discontinuing the program would also eliminate the monies the State receives from civil photo enforcement traffic fines. According to statute, any amounts in excess of \$250,000 in the Photo

Enforcement Fund each calendar quarter are deposited in the State General Fund. As of October 16, 2009, a total of about \$19 million was deposited in the State General Fund. (see Question 6, pages 9 through 12, for further details).

As indicated in Question 8 (see pages 13 through 15), traffic safety and officers' activities may also be impacted if the photo enforcement program were discontinued. Specifically:

**Study of Scottsdale's photo enforcement project found improved safety**—Although the study related to the Department's program has not yet been completed, a study related to the City of Scottsdale's Loop 101 freeway photo enforcement pilot project found that photo enforcement improved safety in that area.<sup>2</sup> In November 2007, Arizona State University completed a comprehensive statistical analysis of Scottsdale's photo enforcement pilot project's impact on traffic safety, speed, speeding behavior, and travel time, and found, among other things:<sup>3</sup>

- Average speeds at the photo enforcement sites decreased by approximately 9 mph;
- Total number of crashes decreased 44 to 54 percent depending on the type of analysis;<sup>4</sup>
- Total number of injury crashes decreased 28 to 48 percent, depending on the type of analysis;
- Annual estimated economic benefits of the program ranged from \$16.5 million to \$17.1 million including medical, long-term care, and quality of life costs; and lost productivity and wages; and

<sup>1</sup> The Department reported that payments made at the photo enforcement vendor's office are sent daily to a separate Administrative Office of the Courts' vendor who processes the payments.

<sup>2</sup> From January 2006 through October 2006, the City of Scottsdale operated a speed photo enforcement demonstration project on an 8-mile segment of the Loop 101 freeway. The Scottsdale City Council reactivated the program from February 2007 to June 2007, and the program operated through an intergovernmental agreement with the Department from July 2007 to June 2008.

<sup>3</sup> Washington, S., Shin, K., & van Shalkwyk, I. (2007). *Evaluation of the City of Scottsdale Loop 101 photo enforcement demonstration program* [Final Report AZ 684]. Phoenix, AZ: Arizona Department of Transportation.

<sup>4</sup> The study looked at the reduction in crashes during nonpeak hours because of the limited expected influence of photo enforcement cameras during slow-moving peak periods.

- Mobility improved through travel time savings and improved travel time reliability, with the annual benefit of travel time savings ranging from a low of \$20,000 to a high of \$901,000.<sup>1</sup>

**Collision data analysis is needed**—Findings from the study being conducted in Metropolitan Phoenix will be helpful in determining whether the Department's photo enforcement program has been a factor in decreasing fatal and injury collisions. The Department's state-wide data indicates that the number of fatal collisions has decreased in three of four quarters and injury collisions have decreased every quarter since photo enforcement was implemented, when compared to the same quarters in the 2 years before the program's implementation (see Figures 2 and 3, page 14). However, similar decreases are evident when comparing quarters within the 2 years before photo enforcement. In addition, similar to the general downward trend in state data, national data shows a general downward trend in fatal collisions.

**Department reported other benefits**—According to the Department, along with improving safety, the

photo enforcement program has other benefits. The Department reported that data from the photo enforcement program can assist in law enforcement activities. For example, if the Department is involved in a high-speed pursuit that is approaching a photo enforcement area, its officers may terminate pursuit of the vehicle and instead obtain data related to the speeding vehicle and driver from its photo enforcement system to identify and help apprehend the suspect. Further, according to the Department, it receives data requests related to felony crime investigations such as homicide, robbery, and burglary at least once per week. Moreover, the Department reported that, as the number of collisions has decreased, officers are able to spend more time on other proactive enforcement activities. For example, in its October 2009 media report the Department noted that its officer activity data for the first 9 months of the photo enforcement program shows that in Metropolitan Phoenix and state-wide officers have conducted more traffic stops, made more total arrests, and arrested more impaired drivers and drug offenders than before the program's implementation.

<sup>1</sup> Travel time savings were calculated assuming a \$15-per-hour value of travel-time savings for one-lane collision blockage, and \$20 per hour of value of travel-time savings for two-lane collision blockage.

## Performance Audit Division reports issued within the last 24 months

<b>08-01</b>	Electric Competition	<b>09-05</b>	State Compensation Fund
<b>08-02</b>	Arizona's Universities— Technology Transfer Programs	<b>09-06</b>	Gila County Transportation Excise Tax
<b>08-03</b>	Arizona's Universities—Capital Project Financing	<b>09-07</b>	Department of Health Services, Division of Behavioral Health Services—Substance Abuse Treatment Programs
<b>08-04</b>	Arizona's Universities— Information Technology Security	<b>09-08</b>	Arizona Department of Liquor Licenses and Control
<b>08-05</b>	Arizona Biomedical Research Commission	<b>09-09</b>	Arizona Department of Juvenile Corrections—Suicide Prevention and Violence and Abuse Reduction Efforts
<b>08-06</b>	Board of Podiatry Examiners	<b>09-10</b>	Arizona Department of Juvenile Corrections—Sunset Factors
<b>09-01</b>	Department of Health Services, Division of Licensing Services— Healthcare and Child Care Facility Licensing Fees	<b>09-11</b>	Department of Health Services—Sunset Factors
<b>09-02</b>	Arizona Department of Juvenile Corrections—Rehabilitation and Community Re-entry Programs	<b>10-01</b>	Office of Pest Management— Restructuring
<b>09-03</b>	Maricopa County Special Health Care District		
<b>09-04</b>	Arizona Sports and Tourism Authority		

## Future Performance Audit Division reports

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Arizona State Lottery Commission

Department of Agriculture—Food Safety and Quality Assurance Inspection Programs



**Department of  
Public Safety—**

Photo Enforcement Program

A copy of the full report is available at:

[www.azauditor.gov](http://www.azauditor.gov)

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**QUESTIONS and  
ANSWERS**

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