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United States General Accounting Office
Washington, DC 20548

February 21, 2003

The Honorable Todd Tiahrt
House of Representatives

Subject: *Traffic Enforcement: Funding of Automatic Red-Light and Speed Enforcement Technologies*

Dear Mr. Tiaht:

A number of cities and counties have implemented photo enforcement programs to improve traffic safety. These programs use cameras to identify drivers running red lights or speeding and issue tickets to owners of identified vehicles. Such programs are eligible for funding through Department of Transportation (DOT) highway funding programs.

The former House Majority Leader and you asked us to examine the role that federal funds have played in the local deployment of photo enforcement devices and the amount of revenue generated by photo enforcement programs. In subsequent discussions with your staff, we agreed to (1) identify local jurisdictions that are using photo enforcement devices—red-light cameras or photo radar (speed cameras)—on federal-aid highways (i.e., roadways eligible to receive federal aid); (2) identify local jurisdictions that have received federal funding for photo enforcement; and (3) determine, for those jurisdictions that have received federal funding, how much revenue their photo enforcement programs have generated and the amount of that revenue received by private contractors.

As agreed with your office, we limited our review of photo enforcement programs to those 73 jurisdictions that had been identified by the Insurance Institute for Highway Safety as having photo enforcement programs (see enc. I). We developed the data on these programs through a telephone survey of officials within the 73 jurisdictions and further supplemented the data with information requested from DOT. We did not independently verify the information provided by these sources.

Of the 73 jurisdictions we contacted, we identified 65 local jurisdictions that were operating photo enforcement programs at the time of our survey (Oct.-Nov. 2002). Through the survey or information provided by DOT, we determined that 40 of these jurisdictions were operating photo enforcement devices on federal-aid highways. Five jurisdictions had received federal funds totaling about \$508,000 for photo enforcement over the last 6 years. These jurisdictions had collected a total of about \$50.4 million in fines from these programs and paid about \$46.2 million to private contractors to operate the programs. Two of these jurisdictions reported that the

revenues from their photo enforcement programs were greater than the program costs, while the other three reported revenues less than program costs. The share of program revenues paid to contractors varied greatly among these five jurisdictions.

On December 6, 2002, we briefed your office on the preliminary results of our review. The slides in enclosure I contain updated information that we collected to supplement the briefing.

AGENCY COMMENTS

We provided DOT with a draft of this report for review and comment. DOT agreed with the information in the draft and provided technical comments, which we incorporated as appropriate.

We conducted our work from October through December 2002 in accordance with generally accepted government auditing standards.

We plan no further distribution of this report until 7 days after its date. At that time, we will send copies of this report to interested congressional committees; the Secretary of Transportation; the Administrator, Federal Highway Administration; and the Administrator, National Highway Traffic Safety Administration. The report will also be available on GAO's home page at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2834 or guerrerop@gao.gov. Key contributors to this report were Sharon Dyer, Judy Guilliams-Tapia, and Robert White.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Peter F. Guerrero". The signature is stylized and cursive, with a large initial "P" and "G".

Peter F. Guerrero
Director, Physical Infrastructure Issues



Traffic Enforcement: Funding of Automatic Red-Light and
Speed Enforcement Technologies



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Objectives

We agreed to

- (1) identify local jurisdictions that are using photo enforcement devices—red-light cameras or photo radar (speed cameras)—on federal-aid highways;
- (2) identify local jurisdictions that have received federal funding for photo enforcement; and
- (3) determine, for those jurisdictions that have received federal funding, how much revenue their photo enforcement programs have generated and how much of that revenue was paid to private contractors.



Scope and Methodology

- We agreed to review the 73 jurisdictions identified by the Insurance Institute for Highway Safety (IIHS) as having red-light camera and/or photo radar programs.
- We conducted a phone survey of these jurisdictions in order to accomplish our review objectives. In our phone survey, we asked whether the jurisdiction had an active red-light camera or photo radar program, whether it used these devices on federal-aid highways, and whether it had received any federal funds for the research and development or deployment of photo enforcement devices.



Jurisdictions identified by IIHS using photo enforcement

<p>Arizona Chandler Mesa* Paradise Valley* Phoenix* Scottsdale* Tempe California Beverly Hills Culver City Cupertino El Cajon Fremont Fresno Garden Grove Indian Wells Irvine Long Beach Los Angeles City Los Angeles County Oxnard Redwood City Sacramento City Sacramento County San Diego</p>	<p>San Francisco San Jose* San Juan Capistrano Ventura* West Hollywood Colorado Boulder* Denver* Fort Collins* Delaware Wilmington District of Columbia* Georgia Decatur Maryland Anne Arundel County Annapolis Baltimore City Baltimore County Bel Air Bladensburg</p>	<p>Charles County Cheverly College Park Cottage City Forest Heights Greenbelt Howard County Hyattsville Laurel Landover Hills Montgomery County Morningside Prince George's County Riverdale Park New York New York City North Carolina Charlotte Fayetteville Greensboro High Point Wilmington</p>	<p>Ohio Dayton Toledo Oregon Beaverton* Medford* Portland* Tennessee Germantown Virginia Alexandria Arlington Fairfax City Fairfax County Falls Church Vienna Washington Lakewood*</p>
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Source: Insurance Institute for Highway Safety.

*IIHS identified these 13 jurisdictions as having photo radar programs. All but 1 of these jurisdictions—San Jose—was also on IIHS's list of jurisdictions with red light camera programs.

*The IIHS website identified both Ventura and San Buena Ventura as jurisdictions with red-light camera programs. Both of these names are used by the same jurisdiction.



Scope and Methodology

- In addition, we obtained information from the Department of Transportation (DOT).
 - If a jurisdiction did not know whether its photo enforcement devices were located on federal-aid highways, we requested information on the locations of these devices and asked the Federal Highway Administration (FHWA) to make this determination.
 - FHWA and the National Highway Traffic Safety Administration (NHTSA), at our request, also asked their field offices to identify uses of federal funds for local photo enforcement programs. If we determined, either through our phone survey or through DOT, that a jurisdiction had received federal funding for photo enforcement, we sent a follow-up survey to the jurisdiction requesting information on its program revenues.¹

¹We requested information on program revenues only if the jurisdiction had received federal funds within the previous 6 years.



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Scope and Methodology

- We contacted 73 jurisdictions and completed our phone survey for 72 of them.
- We did not independently verify the responses we received from local jurisdictions.
- Our review did not include an examination of the safety benefits of local photo enforcement programs.



Results in Brief

- Of the 72 jurisdictions that completed our phone survey, 65 said that they have active photo enforcement programs. Of these 65, we identified 40 that are operating photo enforcement devices on federal-aid highways.
- Five of the jurisdictions have received federal funds for photo enforcement within the previous 6 years.
- Two of these jurisdictions reported that the revenues from their photo enforcement programs were greater than the program costs, while three others reported revenues less than program costs.
- The share of program revenues paid to contractors varied greatly among these jurisdictions.



Photo Enforcement Programs
Operated by Local Jurisdictions

- Of the 72 jurisdictions that we interviewed, 65 have active photo enforcement programs.
- Of these 65 jurisdictions,
 - 52 reported operating red-light camera programs only,
 - 11 reported operating red-light camera and photo radar programs, and
 - 2 reported operating a photo radar program only.
- See Enclosure II for further information.



Jurisdictions Reporting Use of Photo Enforcement Devices on Federal-Aid Highways

- In identifying local jurisdictions that report using photo enforcement devices (red-light cameras and/or photo radar) on federal-aid highways, we used the definition of federal-aid highway in 23 U.S.C. 101 as any roadway eligible to receive federal aid.¹
- Of the 63 jurisdictions with active red-light camera programs:
 - 8 told us that they are using cameras on federal-aid highways.
 - 21 told us that they are not.
 - 34 said that they do not know whether their cameras are on federal-aid highways. We obtained information on the locations of cameras for all of these jurisdictions, and FHWA determined that 32 of them operate cameras on federal-aid highways.²

¹FHWA provides funds to states and other entities for roadway construction and improvement projects through various programs, such as the National Highway System program, and related accounts. Roadways that are eligible to receive such funds include interstates and freeways, among others.

²Red-light camera locations are intersections where cameras have been installed. The jurisdiction for which we did not obtain this information was New York City. The director of the city's red-light camera program told us that the city does not distribute information on the locations of its cameras.



Jurisdictions Reporting Use of Photo Enforcement Devices on Federal-Aid Highways

- Of the 13 jurisdictions that told us they have active photo radar programs:
 - 3 told us that they are using these devices on federal-aid highways.
 - 7 told us that they are not.
 - 3 said that they do not know whether their devices are on federal-aid highways. We obtained information on the locations of photo radar devices for 2 of these jurisdictions and FHWA determined that both of them operate cameras on federal-aid highways.¹
- In total, we were able to identify 40 jurisdictions that operate photo enforcement devices on federal-aid highways. These jurisdictions operate 39 red-light camera programs and 5 photo radar programs.²

¹ Jurisdictions may equip vehicles with these devices and use them in various locations.

² Four of these jurisdictions operate both red-light camera and photo radar programs.



Jurisdictions That Received Federal Funding for Photo Enforcement

- On the basis of responses to our phone survey and information we obtained from DOT, we identified 5 jurisdictions that have received federal funding for the research and development or deployment of photo enforcement technologies within the previous 6 years:¹
 - Beaverton, Oregon
 - Decatur, Georgia
 - Howard County, Maryland
 - Lakewood, Washington
 - Washington, D.C.

¹ Two of these 5 jurisdictions, Howard County, MD and Washington, D.C., were identified as operating photo enforcement devices on federal-aid highways. In addition, officials of the California Department of Transportation (Caltrans) informed us that FHWA has provided them with \$1.83 million in Surface Transportation Program funds for a Caltrans-sponsored project to purchase and install red-light cameras and make improvements on a state route leading to the Golden Gate Bridge. Caltrans expects to start the project in the next few months. The city and county of San Francisco will operate the red-light cameras after they are installed. We did not ask San Francisco for program revenue information, because this project has not yet started.



Federal support of local photo enforcement programs since October 1996

Jurisdiction	Source of funds	Name of Recipient	Funding period	Amount	Purpose
Beaverton, OR	NHTSA grant (Section 157) ^a	City of Beaverton	12/98-9/99	\$106,410	Support public awareness activities related to pilot red-light camera program
Decatur, GA	NHTSA grant (Section 402) ^b	City of Decatur	10/02	\$105,219	Reimburse the city for capital expenses associated with the installation of red-light cameras
Howard County, MD	FHWA grant (Section 402) ^b	Howard County Police Dept.	Fall 1996-98	\$80,000	Support public awareness campaign and technology trials related to establishment of red-light camera program
Howard County, MD	FHWA grant (Demonstration Projects Program)	Howard County Dept. of Public Works	7/97-2/99	\$75,000	Evaluate digital red-light camera technology ^c
Lakewood, WA	Surface Transportation Program	City of Lakewood	1/01-12/02	\$72,000	Fund pilot red-light camera program
Washington, D.C.	FHWA grant (Research, Development, and Technology Program)	District of Columbia Dept. of Public Works	9/94-11/01	\$70,000	Evaluate D.C.'s red-light camera program

Source: DOT and local jurisdictions (data), GAO analysis.

^aSeat Belt Incentive Grant Program.

^bState and Community Highway Safety Grant Program.

^cAccording to the manager of this R&D project, digital red-light camera technology was tested at 4 sites--3 in Howard County and 1 in Montgomery County. Montgomery County's participation in the project consisted of allowing access to the signal system at this one site; it did not receive any project funds.



Program Revenues and Expenditures:
Beaverton, Oregon

Red-light camera program

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures ^a
2000-2001 (July 1, 2000-July 31, 2001) <i>Program began January 23, 2001</i>	1,070	\$137,388	\$135,558	\$129,946	\$289,659
2001-2002 (July 1, 2001-June 30, 2002)	2,858	354,260	345,053	449,398	35,471
2002-2003 (July 1 2002-November 20, 2002)	1,461	141,060	122,039	161,224	184
Total	5, 389	\$632,708	\$602,650	\$740,568	\$325,314

Source: City of Beaverton, Oregon.

Note: All data are as of November 20, 2002.

^aProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.



Program Revenues and Expenditures:
Decatur, Georgia

Red-light camera program

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures^b
2003 <i>Program began October 24, 2002</i>	158	\$9,480	\$870	\$100,000 ^a	\$6,919 ^c

Source: City of Decatur, Georgia.

Note: Data reflect the period October 24, 2002, the date the program began, through November 21, 2002.

^aInitial capital expenditures for equipment.

^bProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.

^cIncludes computer and high-resolution printer, supplies, and salary for part-time employee.



Program Revenues and Expenditures:
Howard County, Maryland

Red-light camera program

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures ^b
1998	12,729	NA	NA	NA	NA
1999	31,352	NA	NA	NA	NA
2000	30,828	NA	NA	NA	NA
2001	26,004	NA	NA	NA	NA
2002 ^a	21,284	NA	NA	NA	NA
Total	122,197	\$9,076,330	\$8,372, 269	\$3,079,478	\$2,325,000

Source: Howard County, Maryland Police Department.

Note: NA : Annual data not available.

^aAs of December 9, 2002.

^bProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.



Program Revenues and Expenditures:
Lakewood, Washington

Red-light camera and photo radar programs

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures ^c
2001	13,520	\$1,189,734	\$581,102	\$443,838	\$330,000
Red-light camera ^a	5,266	403,084	NA	204,247	NA
Photo radar ^b	8,254	786,650	NA	239,591	NA
2002	16,488	NA	642,340	461,569	207,000
Red-light camera	4,185	NA	NA	NA	NA
Photo radar	12,303	NA	NA	NA	NA
Total Red-light camera	9,451	NA	NA	NA	NA
Total photo radar	20,557	NA	NA	NA	NA
Total	30,008	NA	\$1,223,442	\$905,407	\$537,000

Source: City of Lakewood, Washington.

Note: NA: Annual data not available.

^aProgram began July 1, 2001.

^bProgram began April 1, 2001.

^cProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.



Program Revenues and Expenditures:
Washington, D.C.

Red-light camera program

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures ^a
1999	6,082	\$456,150	\$91,759	\$38,400	NA
2000	146,662	10,999,650	7,204,673	2,782,693	NA
2001	99,387	7,454,025	6,410,271	2,528,393	NA
2002	82,631	6,197,325	5,505,299	2,188,310	NA
2003 ^b	6,933	519,975	442,155	190,000	NA
Total	341,695	\$25,627,125	\$19,653,157	\$7,727,796	NA

Source: Metropolitan Police Department, Washington, D.C.

Note: NA: Annual and summary data not available.

^aThrough October 2002.

^bProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.



**Program Revenues and Expenditures:
Washington, D.C.**

Photo radar program

Fiscal year	Number of tickets issued	Amount billed to motorists	Amount collected from motorists to date	Amount paid to private contractors	Other program expenditures^b
2001	31,220	\$980,375	\$420,584	\$997,774	NA
2002	351,909	21,896,145	19,073,039	7,653,867	NA
2003 ^a	18,191	1,648,150	1,079,516	576,186	NA
Total	383,129	\$24,524,670	\$20,573,139	\$9,227,827	NA

Source: Metropolitan Police Department, Washington, D.C.

Note: NA: Data not available.

^aThrough October 2002.

^bProgram expenditures, such as local personnel and overhead costs, other than payments to private contractors.

Information Obtained on 73 Local Jurisdictions Identified by Insurance Institute for Highway Safety As Using Photo Enforcement

Jurisdiction	Responded to telephone survey	Active red-light camera program	Red-light cameras used on federal-aid highway ^a	Active photo radar program	Photo radar devices used on federal-aid highway ^a	Federal funds received for photo enforcement ^b
Arizona						
Chandler	✓	✓				
Mesa	✓	✓		✓		
Paradise Valley	✓	✓	✓	✓	✓	
Phoenix	✓	✓		✓		
Scottsdale	✓	✓	✓	✓	✓	
Tempe						
California						
Beverly Hills	✓	✓				
Culver City	✓	✓				
Cupertino	✓	✓				
El Cajon	✓	✓				
Fremont	✓	✓				
Fresno	✓	✓				
Garden Grove	✓	✓				
Indian Wells	✓	✓	✓			
Irvine	✓	✓				
Long Beach	✓	✓	✓			
Los Angeles City	✓	✓				
Los Angeles County	✓	✓				
Oxnard	✓	✓	✓			
Redwood City	✓	✓				
Sacramento City	✓	✓	✓			
Sacramento County	✓	✓	✓			
San Diego	✓	✓	✓			
San Francisco	✓	✓	✓			
San Jose	✓	✓		✓	✓	
San Juan Capistrano	✓	✓	✓			
Ventura ^c	✓	✓				
West Hollywood	✓	✓				
Colorado						
Boulder	✓	✓	✓	✓		
Denver	✓	✓		✓		
Fort Collins	✓	✓	✓	✓	✓	
Delaware						
Wilmington	✓	✓	✓			
District of Columbia						
	✓	✓	✓	✓	✓	✓
Georgia						
Decatur	✓	✓				✓
Maryland						
Anne Arundel County	✓	✓	✓			
Annapolis	✓					
Baltimore City	✓	✓	✓			
Baltimore County	✓	✓	✓			
Bel Air	✓	✓				
Bladensburg	✓					
Charles County	✓	✓	✓			
Cheverly	✓	✓	✓			
College Park	✓					
Cottage City	✓	✓	✓			
Forest Heights	✓					
Greenbelt	✓	✓	✓			
Howard County	✓	✓	✓			✓
Hyattsville	✓	✓	✓			

Enclosure II

Jurisdiction	Responded to telephone survey	Active red-light camera program	Red-light cameras used on federal-aid highway ^a	Active photo radar program	Photo radar devices used on federal-aid highway ^a	Federal funds received for photo enforcement ^b
Landover Hills	✓	✓	✓			
Laurel	✓	✓	✓			
Montgomery County	✓	✓	✓			
Morningside	✓	✓	✓			
Prince George's County	✓	✓	✓			
Riverdale Park	✓	✓	✓			
New York						
New York City	✓	✓				
North Carolina						
Charlotte	✓	✓	✓			
Fayetteville	✓	✓				
Greensboro	✓	✓				
High Point	✓	✓	✓			
Wilmington	✓	✓	✓			
Ohio						
Dayton	✓					
Toledo	✓	✓	✓			
Oregon						
Beaverton	✓	✓		✓		✓
Medford	✓	✓		✓		
Portland	✓	✓		✓		
Tennessee						
Germantown	✓	✓	✓			
Virginia						
Alexandria	✓	✓				
Arlington	✓	✓	✓			
Fairfax City	✓	✓	✓			
Fairfax County	✓	✓	✓			
Falls Church	✓	✓	✓			
Vienna	✓	✓	✓			
Washington						
Lakewood	✓	✓		✓		✓
Total	72	63	39	13	5	5

Source: GAO's analysis of data obtained from phone surveys and DOT.

Note: GAO analysis of data obtained from telephone survey and DOT.

^aCheck marks indicate either that the jurisdiction told us it is using photo enforcement devices on federal-aid highways or that FHWA has determined, on the basis of information provided by the jurisdiction, that the jurisdiction is using such devices on federal-aid highways. We did not independently verify the responses or information we received from local jurisdictions.

^bCheck marks indicate either that the jurisdiction told us it had received federal funds for photo enforcement research and development or deployment or that FHWA and NHTSA provided us with information on federal funding received by the jurisdiction.

^cThe city of Ventura is also known as San Buena Ventura.