Caution:

Red Light Cameras Ahead

The Risks of Privatizing Traffic Law Enforcement and How to Protect the Public

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Executive Summary

Privatized traffic law enforcement systems are spreading rapidly across the United States. As many as 700 local jurisdictions have entered into deals with for-profit companies to install camera systems at intersections and along roadways to encourage drivers to obey traffic signals and follow speed limits.

Local contracting for automated traffic enforcement systems may sometimes be a useful tool for keeping drivers and pedestrians safe. But when private firms and municipalities consider revenues first, and safety second, the public interest is threatened.

Before pursuing a camera system contract, local governments should heed the advice of the Federal Highway Administration and first investigate traffic engineering solutions for problem intersections or roadways. If officials decide that private enforcement systems are appropriate, they should avoid deals that constrain future decisions related to protecting safety. Privatized traffic law enforcement should be used solely as a tool for enhancing traffic safety—not as a cash cow for municipalities or private firms.

Privatized traffic law enforcement systems are spreading rapidly across the United States.

- According to the Insurance Institute for Highway Safety, about half of U.S. states have authorized the use of red-light cameras. Our compilation of industry listings shows that approximately 693 local governments and authorities have active red-light cameras, or are in the process of installing them, as of September 2011. Another 92 have contracts for automated speed limit enforcement cameras. Altogether, these jurisdictions are home to more than 60 million people, or about one in five Americans.

- These camera systems automatically detect violations of traffic laws, take photos of the offending vehicles, and identify license plates. Typically, vendors issue tickets, which must be approved by local authorities, and deliver them by mail to the registered owner of the vehicle.

- Privatized traffic enforcement is part of a larger trend of local governments outsourcing the management of toll roads, parking meters, water and sewer assets, and sometimes even public safety services such as fire protection to private firms.

Contracts between private camera vendors and cities can include payment incentives that put profit above traffic safety.

- The most problematic contracts require cities to share revenue with the camera vendor on a per-ticket basis or through other formulas as a percentage of revenue. In other words, the more tickets a camera system issues, the more profit the vendor collects. For example, Suffolk County, New York, diverts half of the revenue from its red-light camera program to camera vendor Affiliated Computer Services.

- Conditional "cost-neutral" contracts also contain provisions that link payments to the number of tickets issued, although payments are capped. Under these contracts, cities pay a monthly fee to a camera vendor. In the event that ticket revenues fail to cover the vendor fee in any given month, however, cities may delay payment—giving vendors an incentive to ensure a minimum level of citations are issued.

Privatized traffic enforcement system contracts that limit government discretion to set and enforce traffic regulations put the public at risk. For example:

- *Yellow Light Duration.* When traffic engineers lengthen a yellow signal, it gives drivers more time to react to the signal change, which tends to reduce the number of red-light violations. However, some contracts, including those in the California cities of Bell Gardens, Citrus Heights, Corona and Hawthorne, potentially impose financial penalties on the city if traffic engineers extend the length of the yellow light at intersections with red-light cameras, which would reduce the number of tickets the systems can issue.

- *Right on Red Enforcement.* Law enforcement agencies in different cities choose which types of violations to prioritize in the name of public safety, including whether or not to ticket motorists who make a "rolling stop" rather than a complete stop behind the line before turning right on a red light. However, some contracts require municipalities to strictly issue tickets on all right turns that do not first come to a complete stop, or enable vendors to impose financial penalties on cities that choose to alter their enforcement standards—including the contracts that Ventura and Napa Valley, California have with camera vendor Redflex.

- *Ticket Quotas.* Some contracts include language that could penalize municipalities if they do not approve enough tickets—effectively setting a ticket quota and undermining the authority of local officials to decide which violations warrant citations. For example, Walnut, California signed a contract with Redflex that raises the possibility of a financial penalty if the city waives more than 10 percent of the potential violations identified by the private camera system. Other contracts give camera vendors the ability to veto proposed camera locations, sometimes referring to a minimum ticket number or revenue requirement.

Contracts between camera vendors and cities can include penalties for early termination—or fail to provide provisions for early termination—leaving taxpayers on the hook even if the camera program fails to meet its objectives. For example:

- After voters in Houston elected to shut off the city's red-light camera program in November 2010, American Traffic Solutions claimed that the city would owe the company $25 million for withdrawing from the contract before it expired in 2014.

- After San Bernardino, California, decided to terminate its red-light camera program in March 2011, American Traffic Solutions threatened to impose a $1.8 million penalty on the city.

- The city council in Victorville, California, considered shutting down the local red-light camera program, but discovered that their new contract with Redflex did not contain a clause addressing early termination. The council estimated that pulling out of the contract before its 2015 expiration date would only be possible through litigation.

- The city of Baytown, Texas, signed a contract through 2019 for a red-light camera system with American Traffic Solutions. However, after voters decided that red-light tickets could not be issued unless a uniformed officer was present at an intersection, the city began waiving many of the citations issued by the system. In response, American Traffic Solutions filed a lawsuit, alleging that the city was failing to meet its contractual obligation to issue tickets. In August 2011, Baytown settled the dispute by authorizing a $1 million payment to American Traffic Solutions in exchange for early camera removal.

Privatized traffic enforcement system contracts that limit government discretion to set and enforce traffic regulations put the public at risk. Credit: Gary Brown

The privatized traffic law enforcement industry has amassed significant political clout that it uses to shape traffic safety nationwide.

- Camera vendors are aggressively lobbying to expand authorization for private traffic law enforcement to more states and are marketing enforcement systems to more communities. Local governments are likely to encounter traffic law enforcement privatization campaigns in the near future, if they have not already.

- In 2011, camera vendors employed nearly 40 lobbyists in Florida, whose agenda included killing a bill that would have required municipalities to adopt longer yellow light times to increase intersection safety, and killing a separate bill that would have banned red-light camera systems.

- Some red-light camera vendors have created and bankrolled organizations, such as the National Coalition for Safer Roads, that pose as grassroots civic groups while presenting only the upsides of camera systems and failing to discuss alternatives.

As local governments consider initiating or renewing contracts for privatized traffic law enforcement, officials should protect the public by adhering to the following principles:

- Put public safety first in decisions regarding enforcement of traffic laws—this includes evaluating privatized law enforcement camera systems against alternative safety options without regard to potential revenues.

- Ensure that contract language is free from potential conflicts of interest.

- Avoid direct or indirect incentives for vendors that are based on the volume of tickets or fines.

- Retain complete public control over all transportation policy decisions.

- Retain the option to withdraw from a contract early if dissatisfied with service or its effects.

- Ensure that the process of contracting with vendors is completely open, with ample opportunity for meaningful public participation.

- Make information about the operation of privatized traffic law enforcement fully transparent and accessible online.

- Do not permit information about individual vehicles and drivers gathered by camera vendors to be used for any purpose other than the enforcement of traffic laws.

- Consider establishing state standards to help cities avoid contracting for automated enforcement systems that are not justified or when alternatives make more sense.

Introduction

In the aftermath of the worst economic crisis since the Great Depression, local governments across America face gaping deficits. Total tax receipts remain below their 2008 levels. Closing the gap would require state and local governments to cut spending by an average of more than 12 percent a year, or raise revenue by an equivalent amount.[1]

Facing the prospect of laying off essential public employees, including teachers, firefighters, and police officers, it is no wonder that government officials listen receptively to anyone who can promise a new revenue source, a way to reduce expenses, or an option to reallocate scarce government resources. Better yet if these ideas can serve a public good in a new and better way, at no cost to the government.

A group of companies have come up with a way to set up set up camera systems to identify vehicles or drivers who run red lights at intersections or break speed limits along roadways. These vendors market their systems as increasing road safety and freeing up police officers to do more important work—all while having a neutral, or even positive, impact on government finances.

With such selling points, it is easy to see why local officials have been receptive to proposals to outsource aspects of traffic enforcement to private firms. As many as 700 government authorities have signed contracts for camera systems to date.

These systems have not arrived without controversy, however. While the vast majority of citizens support the enforcement of traffic laws to make roadways safe, citizens grow concerned if they perceive that a privatized traffic law enforcement system is unjust, or that its main purpose is to generate revenue.

In this report, U.S. PIRG Education Fund evaluates deals that cities have struck with private companies for traffic law enforcement systems. These deals sometimes prevent local governments from acting in the best interests of their citizens, especially when the terms of the deal prioritize delivering profits for the shareholders or owners of the private firm.

This report does not evaluate the proper role of camera systems in improving public safety. Ultimately, it is up to local government officials to determine how best to guarantee the safety of walkers, bikers and motorists in their community—and to

assess whether automated traffic enforcement is a useful tool in meeting that goal.

Rather, this report aims to examine whether privatization of traffic enforcement is good for the public. The involvement of for-profit private entities in traffic enforcement is relatively new—and brings with it significant new challenges for protecting the public interest.

Any community considering outsourcing traffic law enforcement to a private company must carefully weigh the decision and ensure that it protects the interests of citizens in safe roadways and good government.

Privatization of Traffic Law Enforcement Defined

In this report, U.S. PIRG Education Fund defines the term "privatization of traffic law enforcement" as the outsourcing of functions and decision-making in the enforcement of traffic safety laws away from public officers and toward for-profit companies. We use the term to highlight how the incentives and conditions in contracts with vendors of automated traffic systems can skew the implementation of these programs away from the public interest.

The privatization of traffic law enforcement typically shifts some but not all of the function away from public officials. Police agencies normally retain an off-site and after-the-fact role in the process of approval and appeal of camera citations. Police departments can even deploy automated traffic enforcement systems without privatization. However, operating enforcement camera systems in-house is the exception rather than the norm.[2]

Privatized Traffic Law Enforcement: A Nationwide Trend

Privatized traffic law enforcement systems are spreading rapidly across the United States. As many as 700 American municipalities have entered into deals with for-profit companies to install cameras at intersections and along roadways to encourage drivers to obey traffic signals and follow speed limits.

Contracting with private companies for automated traffic enforcement is part of a larger trend of local governments outsourcing the management of toll roads, parking meters, water and sewer services, garbage collection, and even public safety services such as fire protection to private firms.

Red-Light and Speed Cameras Automate Traffic Law Enforcement

The enforcement of traffic laws was once carried out only by police agencies, with officers acting in person upon witnessing a violation or responding to an accident. However, with high-powered computer technology and internet communications, private firms have developed automated systems that can substitute for a police officer on a roadside or at an intersection. These systems are capable of detecting traffic law violations, identifying vehicles, capturing photographic evidence, and transmitting the information to a central office, which can then issue tickets.

Red-light enforcement systems consist of sensors tied to a traffic signal, plus

Red-light camera systems consist of a camera and strobe light set up to capture evidence of a violation and an image of a vehicle's license plate, a wireless sensor or video camera set up to detect when a vehicle crosses into the intersection, and a computer system that integrates all of the information and transmits proposed violations to a central office through a network connection. Credit: Gary Brown, Creative Commons

cameras mounted on nearby poles. (See photos on page 7 and 8.) In addition to visual evidence of a violation, the systems record supporting information, such as the time after the red signal the vehicle entered the intersection, or the speed at which the vehicle was traveling.[3] Some jurisdictions require a positive identification of the driver, as matched by the driver's license photo on record for the vehicle's registered owner in order for a ticket to be issued. Speed cameras can be fixed at a single location, or attached to a mobile trailer. The systems typically submit evidence of any violations to the camera vendor, which then sends proposed tickets to local authorities for approval. The vendor then typically mails a ticket to the registered owner of the vehicle, after obtaining the address from a Department of Motor Vehicles database.

The systems are intended to promote safe driving by deterring drivers from disobeying traffic laws. Many communities require signs to be posted before camera-equipped intersections, notifying drivers of the presence of 24 hour-a-day signal monitoring.[4] (See photo on page 10.)

Camera Systems are Spreading Nationwide

Automated traffic enforcement systems are spreading rapidly across the United States.

The city of Jackson, Mississippi, installed the first red-light camera system in the United States in 1992.[15] As of September 2011, the Insurance Institute for Highway Safety lists 553 municipalities that have installed automated red-light cameras, and nearly 100 that have installed automated speed cameras.[16] Based on lists of clients provided by Redflex and American Traffic Services, the two largest camera vendors, another 113 government authorities have installed or are installing camera enforcement systems. In total, 693 communities or government authorities have chosen to deploy camera enforcement systems. These jurisdictions are home to more than 60 million people, or about one in five Americans.[17] (See Figure 1. See also "Does Anyone Know How Many Communities Have Automated Traffic Enforcement Contracts?" on page 10 for caveats, and the appendix on page 33 for a full list of communities outsourcing aspects of traffic law enforcement.)

State or local governments must specifically authorize enforcement agencies to cite violators by mail before automated enforcement systems can be used, making the registered vehicle owner responsible for the ticket. Law or judicial precedent must

This camera system identifies violations of red-light signals at an intersection, transmitting evidence and vehicle identification information to the vendor. Vendors issue tickets, after approval by local authorities, which are then delivered to the registered owner of the vehicle. Credit: Flickr user Busboy4, Creative Commons

Traffic Safety in the United States: Focusing on Intersections

While traffic safety has steadily improved since the 1970s, driving accidents remain a serious problem. Every year in the United States, more than 30,000 people die in automobile crashes.[5] Speeding is a root cause of about a third of these deaths, and crashes at intersections are responsible for about 20 percent. Other fatalities are caused by vehicles leaving roadways, or by accidents involving pedestrians.[6]

Almost half of crashes causing injuries occur at intersections.[7] Within the United States:

- There are about 3 million roadway intersections. About one in 10 of these intersections are governed by traffic signals.[8]
- About a third of all fatal accidents at intersections occur where there are traffic signals. The remaining two thirds occur where no signal is present.[9]
- Red-light running is responsible for about 2 percent of all fatal accidents tracked by the Federal Highway Administration, or about 676 deaths per year, nationwide.[10]
- Fatal crashes at intersections most frequently involve right-angle collisions (45 percent), followed by collisions involving pedestrians or bicyclists (17 percent), head-on collisions (14 percent), single vehicles hitting an object (13 percent), and rear-end collisions (6 percent).[11]
- One 1999 survey, sponsored by DaimlerChrysler, the American Trauma Society and the Federal Highway Administration, found that 56 percent of American drivers admitted to having ever run a red light.[12]

also make clear that a photographic record alone is sufficient evidence for a citation. Some laws presume that the registered owner is the driver at the time of violation, but provide a means for owners to identify the driver if it was another person; other laws treat these violations like parking tickets, in which the registered owner is responsible no matter who was driving.[18]

Laws that target the driver of the vehicle typically classify offenses as moving violations. Consequences can include fines, points against a drivers' license, and a likely increase in insurance premiums. Laws that treat offenses as a civil matter like parking tickets typically require only fines.

In some areas, citizens have discovered that state authorization laws for privatized traffic enforcement systems leave cities unable to effectively enforce violations captured by camera systems, leading many to simply ignore the tickets. Los Angeles recently decided to cancel its photo enforcement program largely for this reason.[19] Other laws, such as in Florida, automatically convert unpaid tickets from civil fines

Many communities require signs to be posted before camera-equipped intersections, helping to deter violations of traffic laws. Credit: Gary Brown, Creative Commons

to moving violations and then refer them to a collection agency to prevent citizens from ignoring tickets.[20]

According to the Insurance Institute for Highway Safety, 13 states and Washington, D.C. have specifically authorized the use of automated traffic law enforcement systems statewide. [21] In another 11 states, local or state government has authorized more limited deployment of the systems.[22] Altogether, 42 state legislatures have considered more than 400 bills addressing privatized traffic law enforcement.[23]

Does Anyone Know How Many Communities Have Automated Traffic Enforcement Contracts?

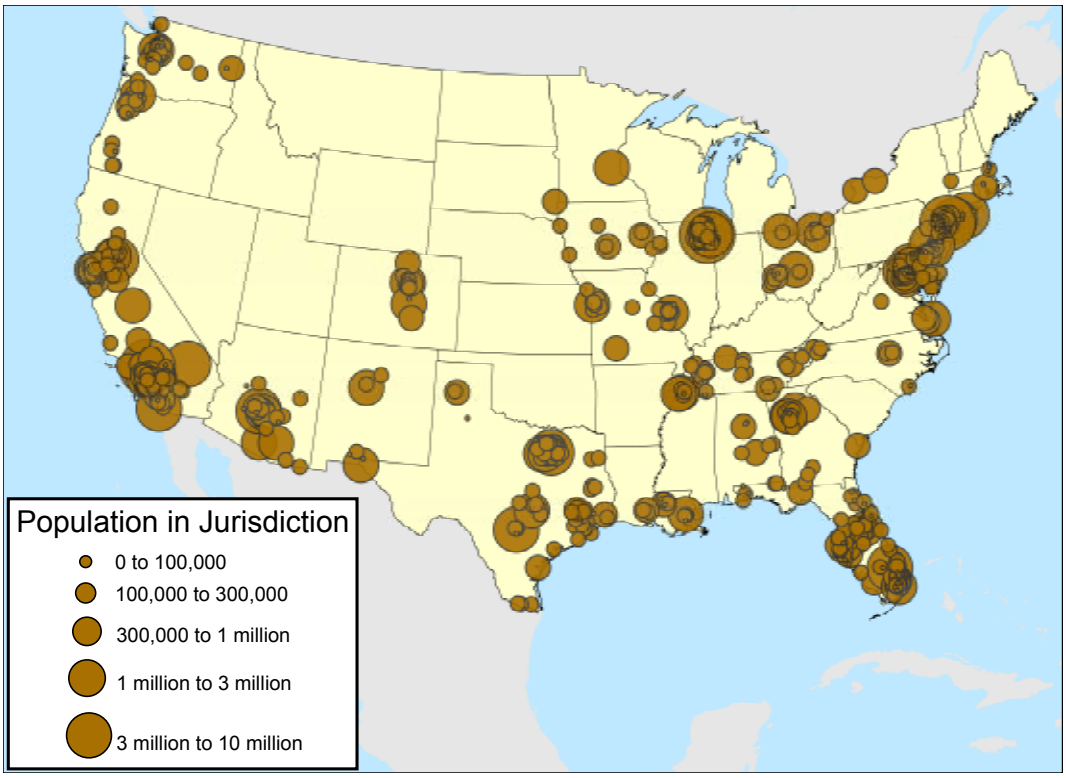
There is no official count of how many communities have contracted for red-light camera systems or other automated traffic enforcement. A lack of national regulatory standards means that no governmental body makes such a tally.

The most common number used as an estimate is from the Insurance Institute for Highway Safety (IIHS), a trade group composed of insurance providers, which claimed on its website in September 2011 that, "In the U.S., red-light cameras are used in approximately 553 communities and speed cameras are used in more than 103 jurisdictions."[13]

The actual number is likely higher, based on industry records. The two largest red-light camera operators, Redflex and American Traffic Solutions (ATS), provided their own list of jurisdictions under contract in response to our request. Other major companies did not respond to our inquiries or, in the case of the company Affiliated Computer Services, refused to provide information. ATS reports working with 275 governmental bodies and Redflex with 249 communities. Adding the ATS and Redflex lists to the IIHS total and eliminating duplicates yields a tally of 693 communities.

It is not clear, however, exactly how many communities are contracted for red-light cameras as opposed to speed cameras or other technology. Further complicating any clear count of communities is the fact that media accounts sometimes contradict the listings provided by vendors or the IIHS.[14]

Figure 1: Jurisdictions with Privatized Traffic Law Enforcement Systems[24]



More than 60 million people live in jurisdictions that have chosen to deploy camera traffic law enforcement systems—about one in five Americans.

Use of privatized traffic law enforcement systems appears likely to continue to spread. Camera vendors are beginning to deploy new applications for the technology, including catching drivers who fail to stop at stop signs, drive past stopped school buses, or leave their cars parked in street sweeping zones. Vendors are also expanding the application of the systems to catch drivers who fail to pay tolls or disobey railroad crossing signals. In 2011, the U.S. Conference of Mayors endorsed a resolution in support of using photo enforcement systems nationwide.[25] And camera vendors continue to aggressively market the systems to municipalities across the country.[26]

Leading Camera Vendors

Three companies supply most of the private traffic law enforcement systems in the United States.

Redflex Traffic Systems and American Traffic Solutions are the largest suppliers of automated traffic law enforcement systems, each capturing more than 40 percent of the market. Redflex Traffic Systems is a division of Redflex Holdings Limited, an Australian company. It holds more than 250 contracts with American cities in 23 states.[27] The company holds the largest single contract, with the city of Chicago, which involves 380 cameras.[28] Overall, the company operates on the order of 2,000 camera systems.[29] Redflex brought in nearly

$150 million in gross revenue during fiscal year 2011, about three-quarters of which derived from its U.S. operations.[30]

American Traffic Solutions, based in Scottsdale, Arizona, has contracts with nearly 300 municipalities in 21 states.[31] The company manages more than 3,000 cameras, covering regions home to about 30 million people.[32] The company is privately held, and its overall revenue information is not publicly available, but is likely in the range of hundreds of millions of dollars annually.

The third-largest provider of traffic enforcement camera systems in the United States is Xerox-owned Affiliated Computer Services, based in Dallas, Texas. This company controls a little more than 10 percent of the U.S. market.[33] Other, smaller players include LaserCraft, based in the United Kingdom; Traffipax, based in Germany; and Redspeed, based in Illinois.

The Ongoing Debate over Red-Light Cameras and Safety

There appears to be no well-accepted consensus on whether red-light camera systems are effective at improving safety at intersections. Some researchers suggest that camera systems increase accidents, while others find that the systems offer benefits.

While this report does not evaluate the proper role of camera systems in improving public safety, the documents referenced in the following footnote provide resources addressing the efficacy of camera systems.[34]

Ultimately, it is up to local government officials to determine how best to guarantee the safety of walkers, bikers and motorists in their community—and to assess whether automated traffic enforcement is a useful tool in meeting that goal.

Pitfalls in Privatized Traffic Law Enforcement Deals

Privatized traffic law enforcement systems may be useful in keeping drivers and pedestrians safe. However, when private firms or municipalities consider revenue first and safety second, the public interest will be threatened.

Pitfalls can arise when contracts encourage vendors to treat automated traffic enforcement systems as a profit center: by maximizing the number of tickets written, regardless of the impact on public safety; by limiting the ability of governments to set traffic safety policies according to community needs; or by constraining the ability of cities to terminate contracts early in the event that automated enforcement systems are rejected by the electorate or fail to meet safety goals.

The budget crises many governments face—coupled with the significant political and marketing clout that camera vendors deploy to expand their market—make it more likely that communities will sign bad deals that favor profit and revenue over safety or other public interests.

Contract Incentives Can Create Conflicts of Interest

The primary interest of private camera vendors is to maximize profits by earning more revenue and reducing costs. The private owners of American Traffic Solutions expect business decisions to produce profitable returns. The executives of Redflex and Affiliated Computer Services similarly answer to a board and stockholders who presumably demand quarterly returns.

This focus on profit can be clearly seen in Redflex's annual report to shareholders, where executives describe how "tighter contract language" and "more aggressive collection efforts in key markets" are important tactics the company will deploy to increase return for its investors in the coming year.[35] It also appears prominently in the contract that Tallahassee, Florida, originally negotiated with Affiliated Computer Services in 2009, which states: "Only sites [for camera system placement] that validate out to a mutually agreed number

of violations per day **to meet the required financial obligations to pay the capitalized investment of the Vendor** will be selected unless otherwise mutually agreed by the City and Vendor."[36] (Emphasis added.)

These goals often conflict with the primary interest of municipalities in preventing accidents and protecting their citizens' health and property.

Contracts between cities and camera system vendors can be written in ways that put revenue first, and put the public interest at risk. The most problematic contracts require cities to divert revenue to the camera vendor on a per-ticket basis. In such contracts, the more tickets a camera system issues, the more profit the vendor collects. So-called "cost-neutral" contracts also contain provisions that link payments to the number of tickets issued, although payments are capped. Both of these payment models can encourage private vendors and public officials to take actions designed primarily to increase the number of citations issued, regardless of the impact on public safety.

Per-Ticket Revenue Formulas

Contracts that link the compensation a private vendor receives with the number of citations issued are inherently problematic—creating a built-in incentive to maximize the issuance of violations, while making public safety a less direct consideration. These types of contracts ultimately weaken the public's trust in the motivation for introducing automated traffic enforcement.

The Federal Highway Administration cautions that if a locality contracts with an outside contractor, "The vendor should not be responsible for selecting the sites or should not be paid on a per-ticket basis due to potential conflict of interest issues that may arise from this arrangement."[37]

These types of contracts are less common now than a decade ago, and a handful of states have passed legislation banning this payment method outright. However, contracts directly linking revenue and citations continue to persist in several forms.

For example:

- Some localities divert a set share of public revenue to the camera vendor. For instance, Suffolk County, New York, awards half the revenue from its red-light camera program to camera vendor Affiliated Computer Services.[38] The city of Clive, Iowa, has not publicly disclosed the proportion, but also shares the revenue generated by each ticket from its red-light camera system with camera vendor Redflex.[39]

- Some localities divert revenue based on formulas. For instance, Baton Rouge, Louisiana, diverts a variable portion of revenue generated by tickets from its photo enforcement system to camera vendor American Traffic Solutions, depending on how quickly citizens respond to fines. For each ticket, the city receives 65 percent of fine collections from the first notice of violation the vendor sends out, and 55 percent if collection requires a second notice.[40]

- Washington, D.C., added new kinds of volume payments after initially banning such incentives. The city amended its photo enforcement contract with Affiliated Computer Services in 2002 away from a revenue sharing model to a flat fee after critics complained that the program was motivated by profit rather than safety. However, in 2005, while considering the addition of more speed cameras, the city extended its contract and added a provision that granted the vendor extra compensation of roughly $20,000 for each bundle of 2,500

tickets above 53,750 per month that the city's system issued.[41] The contract justifies the fee structure—a novel variant of the per-ticket compensation scheme—because changes in camera deployment were anticipated to create a "potentially significant increase in volume" of tickets.[42]

- Tempe, Arizona, may find itself diverting surcharges from traffic school. The city signed a contract with Redflex in 2007 based on a per-ticket revenue model. The city allows ticketed drivers to avoid fines by attending traffic school, for which it levies a surcharge. As a result, drivers have paid less than a third of the citations issued by its red-light camera system.[43] In December 2010, Redflex filed a lawsuit against the city for $1.3 million, plus attorney fees and costs, alleging that the surcharge for traffic school is covered under the revenue-sharing terms of the contract, and that the city should have considered those fees as part of the automated red-light enforcement system, and thus shared the money with Redflex.[44]

Fee-For-Service Contracts

The least problematic revenue model from a public-interest standpoint is the straight fee-for-service contract. In these contracts, municipalities agree to pay a vendor an up-front charge or a flat monthly fee that covers camera installation, maintenance, violation processing, and any other services the vendor offers, without regard to the number of tickets the system issues.

These revenue models have the advantage of removing any incentive to maximize revenue from the self-interest calculation of the camera vendor. The contractor still has an incentive to perform well because errant tickets, lost billing or technical problems with the equipment would displease the municipality, which would then be more likely to contract with another company at the end of the term.

Fee-for-service contracts also give municipalities a clear picture of the cost of applying the system as part of an overall traffic safety management plan. They better enable municipalities to weigh whether red-light cameras, or other options to reduce crashes at intersections, are the most cost-effective way to enhance safety.

One example of a fee-for-service arrangement is the Redflex contract with the city of Sacramento, California. In this contract, Redflex charges monthly fees ranging from $3,750 to $4,200 per direction of approach for each of an initial set of 20 intersections, depending on the number of lanes and the type of violation enforced, and then $4,750 to $5,050 for each additional approach at new intersections.[45] The contract requires all prices to remain fixed for the duration of the contract (through 2012).[46]

Conditional "Cost-Neutral" Contracts

In straight fee-for-service deals, the municipality takes on all of the risk that the privatized enforcement system might not generate enough revenue to pay for itself. Because of the potentially negative impact on already stressed government finances, municipalities may hesitate to enter into a deal like this without assurance that the program will not be too expensive.

In response—especially in areas where per-ticket revenue formulas are outlawed—camera vendors often use a new contract model, containing assurances that the contract will be "cost-neutral" for customers. These types of contracts allow camera vendors to market their product as risk-free for the city budget.

These "cost-neutral" contracts share features of both per-ticket and straight fee-for-service deals. Under these contracts, cities pay a monthly fee to a camera vendor. However, in the event that ticket

Payment Terms in "Cost-Neutral" Deals Can Vary

"Cost-neutral" contracts come in a variety of forms.

- Some variants allow the city to collect a minimum amount of revenue before any earnings are owed to the camera vendor. For example, the city of Citrus Heights, California signed a contract with Redflex which specifies that "Before any payment is due to Redflex, Customer shall be entitled to recover the sum of $8,500 per month from the gross cash received from automated red-light violations […]" based on anticipated city expenses. Any amount above that level can be applied to Redflex invoices, up to the amount that the city has managed to collect by that point.

- Other variants of these contracts require any revenues collected to first be applied to vendor invoices before being directed to any other purpose. For example, Affiliated Computer Services' contract with Tallahassee, Florida, specifies that any revenues must first be applied to the vendor invoice, including any balance carried over from previous months, before being deposited in city coffers. Specifically, the contract states, "[w]hen Program Revenues in any given month exceed the total monthly fixed fees owed ACS in such month, then the excess Program Revenues shall be applied first to any cumulative deficit or balances due to ACS until all shortfall deficits or balances due are paid in full."[48]

- Some contracts require any accumulated deficits to be paid at the end of the contract period. For example, the contract that Ventura, California, signed with camera vendor Redflex, states, "In the event that the contract ends or is terminated and an invoiced balance is still owed to Redflex, all subsequent receipts from automated red-light violations for a period of 12 months from date of termination will be applied to such balance and paid to Redflex, which shall fully satisfy Customer's payment obligations under the contract."[49]

- Others, such as the contract Tallahassee, Florida, has signed with Affiliated Computer Services, allow any payment deficits to expire at the end of the contract period.

Whether "cost-neutral" contracts are legal or not in states that have banned per-ticket revenue arrangements is a matter of active legal challenges. For example, several lower-level courts in California have ruled that cost neutral contracts are illegal, but the decisions have not been "published," and therefore cannot serve as precedent for other court decisions.[50]

revenues fail to cover the vendor fee in any given month, cities may delay payment to the vendor.

Because vendor compensation below the defined monthly cap is linked to the number of tickets issued, these types of contracts create incentives for camera vendors to ensure that the camera systems deliver a minimum amount of monthly revenue. This pressure can lead vendors to include contract conditions that threaten the public interest.

For example, when the city of Roseville, California signed an agreement with Redflex in 2008 for a red-light camera system, the contract contained language that gave Redflex veto power over proposed camera placement to limit its exposure to financial risk. Roseville suggested a set of intersections to the company, but as Roseville Police Spokeswoman Dee Dee Gunther told the *Roseville Press Tribune*, Redflex "came back and basically said we can't find any intersections that would be financially feasible for us to do this and still guarantee cost-neutrality," unless the city agreed to enforce regulations against rolling right turns. The city chose not to do so, and the contract was terminated without breaking ground on any camera installations.[47] In other words, the private camera vendor determined that it was not in its financial interest to install cameras to best support Roseville's safety goals.

Other cities have not been as diligent as Roseville in negotiating deals without terms that undermine the public interest.

Contract Terms Can Limit Government Discretion to Set Transportation Policy

Contracts for automated traffic law enforcement systems can include conditions that limit public control over how to set and enforce traffic regulations.

For example, some contracts impose financial penalties on cities that undertake safety engineering modifications at intersections governed by camera systems—especially when those modifications have an effect on the volume of citations a system can issue, and thus the amount of revenue it can generate. Contracts can also require communities to enforce right-on-red violations, rather than giving local authorities the discretion to decide how to prioritize the enforcement of these infractions in the context of its overall traffic safety goals.

Limiting government authority to set its own safety standards puts the public at risk and diverts traffic law enforcement toward maintaining revenues rather than achieving transportation and safety goals.

Safety-Oriented Intersection Engineering Changes

At intersections with high rates of crashes caused by red-light running, traffic engineers can make engineering changes to reduce collisions. The Federal Highway Administration (FHWA) considers engineering, education and enforcement the three pillars of an effective program to address red-light running.

Education can help drivers learn how to better respond to signals and become more aware of the consequences of reckless driving decisions. Enforcement can provide incentives for drivers to behave cautiously, incentives which become stronger as the fines become higher and more certain. These two tools are well suited for influencing driver behavior.

However, deficiencies with the intersection itself that contribute to red-light running can only be addressed through engineering. FHWA recommends "that a traffic engineer be called upon to review the intersection and approach geometry, signal timing details, and other relevant engineering features to ensure that the red-light-running problem [at a given in-

tersection] is behavioral and not the result of an engineering shortcoming. Cameras should be considered/installed only after engineering solutions have been proven ineffective where there is a red-light-running problem."[51]

Possible engineering measures that may reduce accident frequency at intersections include:[53]

- Increasing signal and intersection visibility so that traffic lights can be seen more clearly and from a greater distance;
- Adding intersection warning signals, painting more visible pavement markings, or reducing the speed limit approaching the intersection;
- Providing sufficient yellow signal duration to give drivers enough time to react to the signal change, based on the speed of traffic, the road grade, the intersection width, and other factors;
- Adding an all-red signal interval to give traffic time to clear before releasing cross-traffic;
- Coordinating signals to improve traffic flow;
- Adding turn lanes and/or exclusive turn signal phases to reduce driver exposure;
- Transforming the intersection into a roundabout, or otherwise altering the geometry of the intersection.

Contracts for automated traffic law enforcement systems that limit local authorities' ability to implement safety changes are not in the public's best interest.

Yellow Light Duration

When traffic engineers lengthen a yellow signal at an intersection, drivers have more time to react to a signal change. This tends to reduce the number of accidental red-light violations. For example, the Texas Transportation Institute studied three years' worth of police reports at more than 180 intersections in Texas. The organization found that when yellow light duration was one second shorter than international guidelines, red-light violations doubled. When yellow light duration was extended one second beyond guidelines, red-light violations fell by half.[54]

Resources for Increasing Intersection Safety

The Federal Highway Administration maintains a wealth of resources online describing different traffic engineering solutions—such as making signals more visible, improving driver awareness of an upcoming intersection, altering intersection design, or improving the operation of signals—that communities can use to increase intersection safety. Improving driver compliance with red lights is just one among a number of possible actions to reduce crashes. For further information, including sample intersection safety action plans that provide guidance on how to identify and deploy cost-effective and publicly acceptable safety strategies, see the Federal Highway Administration's Office of Safety website at safety.fhwa.dot.gov/intersection.

Photo credits: Federal Highway Administration

"Cameras should be considered/installed only after engineering solutions have been proven ineffective where there is a red-light-running problem."

– Federal Highway Administration Guidance for Implementing Red-Light Camera Systems[52]

In its guidance for implementing red-light camera systems, the Federal Highway Administration notes that "[c]hanges in the yellow times after red-light camera systems are in place and operational will affect the number of photographed violations, increasing the number of violations when yellow times are shortened and reducing the number of violations when yellow times are lengthened."[55]

Accordingly, decisions affecting yellow light timing at an intersection monitored by an automated traffic signal enforcement system affect the number of tickets a system can issue—and thus, the amount of revenue that it can generate.

Some contracts that municipalities have signed with camera vendors include provisions that inhibit local authorities from determining and setting their own appropriate yellow light timing. For example, the city of Bell Gardens, California signed a contract with Redflex in 2008 that would penalize the city if it chooses to alter yellow light timing at intersections where cameras are installed. Contract language gives Redflex the option to penalize the city by nullifying the cost-neutral protections in the contract if it "fails to maintain the minimum yellow light change interval as established by the Institute of Transportation Engineers [ITE]."[56] The cities of Citrus Heights, Hawthorne and Corona, California have similarly structured contracts with Redflex.[57]

In 2001, a lawsuit against San Diego's camera program revealed documents showing that the vendor prioritized intersections with short yellow signal timing, high traffic volume, and downhill approaches—all factors that would tend to increase citation volume and thus revenue—for camera placement. The intersections where cameras were placed were not necessarily the intersections with the largest number of accidents.[58]

Right-on-Red Enforcement

Law enforcement agencies in different cities choose which types of violations to prioritize in the name of public safety, including whether or not to ticket motorists who make a "rolling stop" rather than a complete stop behind the line before turning right on a red light. Different states and localities treat these situations differently and police officers normally use their own discretion. A car that barely pauses before a right turn that forces school children to scatter on a crowded corner might be treated differently than a rolling right turn at an empty intersection, for instance.

In Green Cove Springs, Florida, a judge has rejected all red-light violations during right turns that are contested in court, saying "State law isn't precise enough in defining what the cameras must depict to make a valid case against drivers in such cases."[59] Nonetheless, reportedly, most people who receive fines pay them without a challenge.

With automated camera systems, the number of fines issued will largely be determined by how the vendor programs the criteria for identifying a right-on-red violation into the device by the camera vendor, typically in consultation with the local jurisdiction. Any further discretions would involve employees of the camera vendor who review evidence of a violation, or later review by a representative of the local jurisdiction.

When camera vendors are even partially compensated based on the number of citations issued, the companies have a financial interest in stricter enforcement of red-light turn violations. Including these violations within an enforcement program can dramatically increase the number of citations a photo enforcement system issues, and therefore improve the company's bottom line.

For example, in Baton Rouge, Louisiana, violations recorded by a camera system more than quadrupled in the month after it was set to detect rolling right turns.[60] In the city of Los Angeles, three-quarters of all photo-enforcement tickets issued in the first nine months of the year 2010 cited red-light violations on a right hand turn.[61] At one intersection, 91 percent of tickets were for right-hand turns;[62] at another intersection rolling right turns accounted for 97 percent of all citations issued.[63]

Reflecting camera vendors' interests, some contracts reduce the ability of municipalities to make their own decisions on how to address right turn violations.

In some cases, contract terms require municipalities to strictly issue tickets on all right turns that do not first come to a complete stop, or enable vendors to impose financial penalties on cities that choose to alter their enforcement standards.

For example:

- The contracts between the cities of San Carlos and Belmont, California, and Redflex simply say "Customer agrees to enforce all right hand turn violations."[64] The consequence for not enforcing right turn violations is unclear in the contract language, but presumably could involve financial penalties or litigation.

- Redflex's contract with Ventura, California, leaves the door open for the company to penalize the city if "the city fails to enforce right turn violations (from automated red-light violations), in good faith and due diligence, if and when systems are configured for this purpose as mutually agreed between Redflex and the City."[65] Redflex added this measure to the contract with Ventura in an amendment adopted in November 2008—previously the company had invoiced more than $1.7 million to the city that went unpaid because of the "cost neutrality" language in the payment terms of the contract.[66] Other California cities with contracts similar to Ventura's include Citrus Heights, Bakersfield, Bell Gardens, Lynwood, and Walnut. [67]

Contracts often require the city to give the camera vendor a voice in developing the standards for what constitutes a violation of the red signal during a right turn. For example,

- Tallahassee, Florida, signed a contract that assigns Affiliated Computer Services to "Develop the Program Infraction criteria and Enforcement Documentation (collectively the "Business Rules"), sample Notice of Violation and other relevant

When camera vendors are even partially compensated based on the number of citations issued, the companies have a financial interest in stricter enforcement of red-light turn violations. Credit: Flutter Media

documents for approval by the City".[68] And Citrus Heights, California, signed a contract that gives Redflex the responsibility to "Develop the Redlight Violation Criteria in consultation with the Customer."[69]

Ticket Quotas

Contracts for photo enforcement systems typically do not give camera vendors the authority to issue citations. Contracts often contain, in all-capital letters, the text:

> *[Vendor] hereby acknowledges and agrees that the decision to issue a citation shall be the sole, unilateral and exclusive decision of the authorized officer and shall be made in such authorized officer's sole discretion (a "citation decision"), and in no event shall [Vendor] have the ability or authorization to make a citation decision.*

Law-enforcement decisions about when to ticket remain, at least formally, in the hands of police officers. Citizens may regard this as important because they want decisions about when the force of law should be applied against individuals to remain in the hands of public officers who are accountable to democratically elected representatives. However, when contracts penalize municipalities that do not approve enough tickets, then police policies and discretion will likely be tilted to avoid those penalties. One way this can happen is to effectively set a ticket quota, which undermines the authority of local officials to decide which violations warrant citations.

For example, the contract between Walnut, California and Redflex states that the city could pay a financial penalty if "the City or Police waives more than 10 percent of valid violations forwarded to the Police for acceptance."[70] Roseville, California signed a contract with Redflex in 2008 that contained the same provision.[71]

Contracts Can Penalize Communities for Early Termination

An important issue concerning the privatization of municipal services is whether it creates new risks for municipalities by locking them into arrangements that will be painful to undo if unexpected problems arise or results are worse than expected.

In other activities where municipalities have more traditionally outsourced services such as garbage collection and building maintenance, communities very often decide to bring functions back in-house after experimenting with privatization. In fact, research by Mildred Warner at Cornell University and others examines regular surveys of local governments that have been conducted since 1982. The research shows that since 1997 local governments have brought activities back into government provision more often than outsourced new activities.[72] Some of the areas where contracting back in outpaces the rate of outsourcing include traffic-related activities such as traffic signs, street signs, street plowing and street cleaning.[73] According to surveys of government managers, the most common reason given for reversals are problems with service quality followed by lack of cost savings, improvements to government efficiency, problems with monitoring contractors, and citizen support for bringing the work back in-house.[74] The surveys also show that city managers who monitor outsourcing contracts more closely are more likely to reverse the outsourcing subsequently.[75]

These concerns are likely to apply with deals outsourcing aspects of traffic law enforcement as well. In dozens of locations, citizens groups dissatisfied with the service have brought up ballot measures to eliminate camera systems. Other jurisdictions have encountered unexpected costs, including increased courtroom traffic.

For example, Miami-Dade traffic courts handled 20,000 red-light citation cases in August 2011, virtually filling up all available courtroom space.[76]

The point is not that municipalities should not consider privatizing certain services or experiment with outsourcing. But a common experience of other municipalities across a variety of activities is that it often does not work out. Transition costs can therefore be very important. Contracts that stipulate high costs and rigid conditions for bringing activities back in-house impose risks on municipalities and can leave communities locked into arrangements they do not want.

Many automated traffic law enforcement contracts create risk by penalizing municipalities or leaving them exposed to costly and disruptive lawsuits in the case of early termination of the contract, leaving taxpayers on the hook even if the camera system fails to meet community objectives. Contract terms that keep municipalities locked in with heavy cancellation fees or threaten them with expensive litigation if they change their minds are not in the best interests of the public.

- Some contracts specify that if the city terminates the contract early the city will owe the vendor cancellation fees. For example, under Belmont, California's contract with Redflex, the city would owe as much as $80,000 per approach (with up to 4 approaches per intersection) if it chose to withdraw from the contract before it expired.[77] In Tallahassee, Florida, if the city cancels its contract with ACS for reasons of convenience, it will owe a cancellation fee of $100,000, in addition to any unpaid balances, no matter how much revenue the program has collected over time.[78]

- Other unexpected risks, as previously mentioned, can take the form of vendors suspending protections on "cost-neutral" contracts. For example, Ventura, California's "cost-neutral" contract with Redflex stipulates that, should there be a balance remaining in the invoice due Redflex at the end of the contract term, revenues from an additional 12 months of camera operation will be applied to pay the deficit. Many "cost-neutral" contracts specify that cities will no longer be able to defer monthly payments "If systems are deactivated due to customer requirement." [79] Moreover, many contracts state that "If a system is deactivated at the Customer's request, the monthly fee will continue."[80]

These contracts have created real problems for cities that moved to cancel their photo enforcement programs when they failed to meet safety goals, when they cost more than anticipated, or when citizens reacted angrily to the introduction of camera systems.

Houston, Texas

In 2006, Houston signed a contract with vendor American Traffic Solutions for a photo red-light enforcement program. Over the next four years, the system collected more than $44 million in fines.[81]

A group of citizens launched a ballot initiative to eliminate the camera program.[82] The group managed to place the initiative on the November 2010 ballot, and won convincingly, despite the fact that a group called Keep Houston Safe, largely funded by American Traffic Solutions, spent on the order of $1.5 million on a legal and public relations effort to defend the contract.[83]

After the vote, American Traffic Solutions filed suit in federal court to keep the cameras in place.

Houston had renegotiated its contract in 2009, eliminating the provision that gave the city the option to terminate the contract for convenience without penalty.

Instead, the city agreed to a new contract that clearly stated that the agreement "remains in effect until May 27, 2014," without option to terminate.[84] The new contract was an attempt by the city to keep its photo enforcement program in place, even if the state legislature passed a bill that would ban new contracts or contract extensions for privatized traffic law enforcement.[85]

In June 2011, a federal judge decided that the results of the election were invalid. The city, under budgetary pressure, decided to restart the camera enforcement program. Houston Mayor Annise Parker said in a statement: "The City just went through a very painful budget process in which nearly 750 employees were laid off and park, library and health services were cut back. We simply don't have the millions they claim we would owe for violating the court decision and our contractual obligation to American Traffic Solutions (ATS). Therefore, I have decided the fiscally-prudent path to take is to turn the cameras back on while also seeking a second chance for the voters in the courts."[86]

During ongoing talks, American Traffic Solutions asked the city for $18 million to settle the contract dispute. In response, Mayor Parker declared that the company was out of bounds and asked the city council to vote on a resolution to shut off the cameras and ban them outright. The council obliged in August 2011, and city officials again deactivated the camera program.[87]

In response, American Traffic Solutions upped its demand for early termination to $25 million. Andy Taylor, lawyer for the company, told the *Houston Chronicle*, "Houston has always enjoyed for decades a great business reputation where a deal is a deal. In the courthouse they call that the sanctity of contract. Today, the City Council tarnished the reputation of the city by throwing out a valid agreement with our company. […] As a result of throwing it out, it's going to make the streets of Houston less safe, and it's also going to open up, I'm sad to say, the taxpayers to liability to the tune of millions of dollars."

As of the publication of this report, this dispute remains unsettled.

Baytown, Texas

The city of Baytown, Texas, signed a five year contract in 2008 for a red-light camera system with American Traffic Solutions. In May 2009, the city amended the agreement to extend for 15 years. Under the payment terms of the contract, the city shared a percentage of the revenue from each ticket with the camera vendor.[88]

However, in November 2010, citizens voted to end the program. Citizens opposed to the camera program collected signatures for a ballot initiative that required the physical presence of a uniformed officer at an intersection before a red-light ticket could be issued. The ballot initiative passed with 58 percent of the vote.[89]

In order to comply with the results of the election, the city drastically reduced the number of approvals of potential violations captured by the American Traffic Solutions system, since it did not have the personnel to ensure the presence of an officer at every camera location all the time. In December 2010, the city only approved 21 percent of citations, and in the first week of January 2011, it approved none.[90]

In response, in February 2011, American Traffic Solutions filed a lawsuit against Baytown, alleging breach of contract because the city was not approving enough tickets.[91] The company also discontinued operation of the system.

Andy Taylor, lawyer for the vendor, wrote to Baytown officials, "the entire purpose of the program is to automate the detection of red-light runners without the necessity of relying upon personal observation by a peace officer. By changing the program to require personal observation

of red-light running by a peace officer, the city has unilaterally breached the material terms of the agreement."[92]

City lawyers countered that the vendor was responsible for complying with all local laws and regulations under the contract, and that the new law created by the citizen vote was no different.[93]

In August 2011, Baytown settled the dispute by authorizing a $1 million payment to American Traffic Solutions and nullifying the ballot initiative in exchange for early camera removal.[94]

San Bernardino, California

San Bernardino began a contract for photo red-light enforcement with Nestor Systems in 2005. American Traffic Solutions took over the company and the contract in 2009. The contract term extended through 2014 for the last authorized camera system.

In January 2011, the San Bernardino chief of police recommended to the city council that the city extend the contract and add cameras. However, based on testimony over the proposal, the city council decided "that the City has lost business because of the red-light cameras and they're not making the City any safer."[95] In other words, the council decided that the program was not meeting its objectives. Council members instructed the city manager to develop a set of recommendations for exiting the contract early.[96]

In March 2011, the chief of police told the city council that exiting the contract would trigger about $110,000 in fees to American Traffic Solutions. Judging the fee acceptable, the council voted to exit the contract early.

However, the city's estimate was flawed. American Traffic Solutions came back to the city, saying that in fact, the termination fee would approach $1.9 million.[97] The city balked at the high cost, and allowed the traffic cameras to continue operating.[98] The city attorney and the police chief began a public disagreement, and the police chief decided to resign.[99]

The city eventually gave up on its effort to abort the red-light camera contract. In September 2011, the city council voted to extend the operation of its camera system through July 2014, upgrading some cameras and moving some to new intersections. American Traffic Solutions expects to earn $2.4 million in revenue from the deal.[100]

Victorville, California

In March 2011, activists gathered at the Victorville, California, city council meeting and urged council members to end the city's photo red-light enforcement program. At the meeting, city manager Jim Cox told the city council that when asked about the possibility of terminating their contract early, Redflex responded, "There is no provision in the contract for the City to buy their way out of the existing contract."[101]

He concluded that, unless Redflex relented, "the only way that we can cancel the contract is to not live by the terms, which would cause litigation."[102]

Victorville had originally signed a contract with Redflex in 2007. This contract allowed the city to terminate the agreement for any reason, but only within one year after the date of camera installation.[103] In July 2010, the city negotiated with Redflex to remove six cameras while extending the contract for the remaining 10 cameras to 2014. This contract did not add any new early termination language, leaving Victorville with no option to end service if it so chose.[104]

The city hired a lawyer to investigate its options, who concluded that "Redflex is unfortunately not so reasonable. They are only interested in making as much money as possible before the cameras are removed."[105]

As of the publication of this report, Victorville has yet to reach a solution.

Loma Linda, California

In 2009, the city of Loma Linda, California, lengthened the yellow light duration at camera-enforced intersections, dramatically reducing the number of straight-through and left turn violations.[106] When city council members, under pressure from citizens upset about receiving tickets primarily for right turn on red violations, moved to cancel the photo enforcement contract, Redflex threatened to charge the city more than a half million dollars.[107]

Loma Linda decided to finish out the term of its contract and allow the program to expire in December 2010.[108]

The Privatized Traffic Law Enforcement Industry Has Significant Political Clout

It is hard to imagine meter readers lobbying for an increase in the number of parking meters in a town, or traffic cops arguing for more stop signs, solely on the basis that doing so would enable them to write more tickets.

Yet, that is precisely the dynamic that exists with the privatized traffic enforcement industry. The industry's business model depends on more governments adopting their technology and enforcing traffic laws in ways that boost the industry's bottom line. In other words, when there is profit to be made from enforcing traffic laws, there becomes a lobby for creating more violations.

The privatized traffic enforcement industry has amassed significant political clout that it uses to shape traffic safety. That clout comes in the form of influence in state legislatures and over local governments, influence over public opinion, and efforts to create the appearance of grassroots support. The industry has deployed this clout many times over the past year—notably in Washington state and in Texas, where ballot initiatives threatened the private traffic enforcement business model; and in Florida, which passed a new law authorizing camera use statewide.

Given the significant resources that camera vendors bring to bear to advance their interests, governments must be even more aware of the potential pitfalls in privatizing aspects of traffic law enforcement—and vigilant in their defense of the public interest.

Influencing State Legislatures and Local Governments

Camera vendors have worked to build influence in state legislatures and with local government officials, through extensive marketing efforts, lobbying and campaign contributions.

Lobbying Lawmakers

At the state legislative level, camera vendors retain professional lobbyists to expand authorization for camera programs and defend against legislation that could reduce revenue.

American Traffic Solutions is particularly active in Florida. The company holds more than 65 contracts in the state, making it the leading camera vendor there.[109]

However, before 2010, many Florida communities operated camera systems in a legal gray area. The state hadn't authorized the use of the cameras, leaving tickets subject to legal challenges.

Lobbyists for American Traffic Solutions rose to the challenge. According to an analysis by the *Sun-Sentinel*, American Traffic Solutions spent more than $1.3 million lobbying legislators since 2007, and $200,000 contributing to 2010 political campaigns.[110] Other camera companies spent as much as $620,000 in total on lobbying and campaign contributions over the same period.

The *Sun Sentinel* report concluded: "The companies hired a legion of lobbyists to work politicians from local city halls to the state Capitol."[111] American Traffic Solutions alone hired as many as 17 lobbyists to work in the state capitol, and nearly another two dozen to work at the city and county levels, especially in heavily populated areas of southern Florida.[112]

The lobbying effort yielded victory for camera vendors in May 2010, when the legislature authorized the use of privatized traffic law enforcement systems.[113] More victories followed in 2011, when the legislature defeated an effort to ban red-light camera systems and killed a bill that would have required municipalities to adopt longer yellow light times to increase intersection safety—reducing the revenue potential of camera systems.[114]

In its 2010 annual report to investors, Redflex boasted that "During FY2011, all efforts to ban Redflex's programs through state legislation were defeated."[115] Redflex noted in the report that it would continue to work to improve the legislative environment by:[116]

- "proactively seeking to enable and improve the statutory basis for road safety systems as well as defend against adverse developments";
- "using its network of advisors and municipal customers to defeat these efforts [to limit or remove road safety enforcement technologies]";
- "promot[ing] new laws or amendments to existing law that enhance the efficiency and stability of road safety enforcement programs"; and
- "working proactively to seek legislative approvals in new states."

From 2006 to 2011, Redflex employed more than 100 registered lobbyists, who worked in 18 different states.[117]

Influencing Local Government Officials

At the local government level, camera vendors work to sell communities on the need for red-light camera systems, promoting the concept of "cost neutrality" to cash-strapped local governments and working to renew existing contracts. Lobbying tactics to increase revenues from local governments and citizens have included regular contact with elected city officials and conferences sponsored by camera vendors for associations of city and county officials.[118]

Camera vendors also employ legal teams to defend existing contracts against municipalities, which often struggle to afford the corresponding legal fees. For example, American Traffic Solutions successfully filed a lawsuit to prevent activists in Bellingham, Washington from advancing a 2011 ballot initiative that would give voters the opportunity to force city officials to remove the camera systems.[119]

Some local officials or their family members have even become lobbyists for camera vendors. For example,

- In Chicago, Alderman Mark Fary left the city council in 1995. In 2010, he reported making $45,000 as a lobbyist for clients including Redflex Traffic Systems, the major camera vendor serving Chicago, with two contracts together worth $84 million.[120]
- In Miami-Dade County, Florida, Carlos Gimenez Jr., son of Mayor Carlos Gimenez, is a registered lobbyist for American Traffic Solutions, the leading camera vendor in South Florida. Miami-Dade County is in the process of developing a red-light camera program.[121]
- After four terms in the Florida House of Representatives, Ron Regan recently left the legislature and became the director of National Advocacy and Outreach for the National

Coalition for Safer Roads, a group created and funded by American Traffic Solutions (see "Creating Grassroots Support" below). Regan was speaker pro tempore in 2010 and played a key role in passing the bill that authorized red-light camera systems in Florida.[122]

Campaign Contributions
Camera vendors also give donations to candidates for elected office and engage in ballot measure campaigns.

- American Traffic Solutions gave nearly $240,000 to state candidates for office from 2006 to 2011, with more than $143,000 to candidates in Florida during the 2010 elections, when a bill to legalize cameras was up for consideration.[123]

- From 2003 to 2010, Affiliated Computer Services contributed more than $1 million toward state elections. At the federal level, the company maintains a Political Action Committee that spends on the order of $100,000 influencing elections in every two-year federal election cycle.[124] In 2010, the company spent $900,000 lobbying the federal government.[125]

Influencing Public Opinion and Creating Grassroots Support

At the same time, private traffic law enforcement companies are working to build public acceptance for photo enforcement systems, as well as defend against threats from the citizen initiative process, using well-funded public relations campaigns.

Many contracts between camera vendors and communities also specify that some of the revenue of the program be used for public awareness campaigns. To the extent that these efforts increase awareness of traffic safety and promote good driving habits, they can surely be helpful. However, Houston's contract with American Traffic Solutions directs up to $120,000 per year for public awareness, with the specific objective "to limit antagonism, opposition or concerns about the program."[126]

In its 2010 annual report, Redflex gives a fairly clear description of how its public relations campaigns works: [127]

> *In Arizona an opposition group attempted to get an all-out road safety camera ban on the ballot for November 2010. We undertook an extensive grassroots and media effort including the support of the creation of the Safer Arizona Roads Alliance. The ban initiative failed to gain sufficient support to be placed on the November ballot.*
>
> *We continue to work in each of the states in which we do business at a grassroots level to add supporters of our programs in both the public and private sectors, primarily with police and firefighters associations, health care professionals and with government affairs officials.*

Many of the groups and individuals that join these coalitions have real concerns about traffic safety and have legitimately come to back the use of camera systems with due consideration. However, the fact that self-interested companies drive the formation of these groups and fund them—often outside of public view—raises the question of how much of this activity would occur without the company's involvement and direction.

- In Florida, American Traffic Solutions circulated letters of support and op-ed articles signed by police chiefs. However, the articles failed to mention that American Traffic Solutions was involved in writing or circulating them.[128] The articles might not have existed without the public relations effort of the camera vendor.

- In Arizona, Washington, Missouri, New Mexico, and other locations, camera vendors have created astroturf organizations designed to create the appearance of grassroots support. For example, American Traffic Solutions created "the National Coalition for Safer Roads," run by public relations firm Storm King Strategies, LLC.[129]

- American Traffic Solutions created the group Missouri Families for Safer Roads, and recruited Hazelwood Police Chief Carl Wolf as the spokesperson for the group to effectively promote ATS and red-light cameras.[130]

- In New Mexico, a city council member placed an advisory question on the ballot in October 2011, asking citizens for their opinion on whether to continue the city's red-light camera program or not. Leading up to the vote, registered voters received flyers in the mail from a group called "Safe Roads Albuquerque," advocating for the continuance of the camera system. The flyers did not mention that Redflex supported the organization. In the months leading up to the election, Redflex contributed more than $140,000 to fund mailings and advertising designed to influence the outcome of the vote.[131]

- In Washington, activists in Mukilteo worked to bring a ballot initiative opposing cameras to vote in 2010. In response, American Traffic Solutions filed suit. According to emails between the mayor of Mukilteo and Bill Kroske, an executive at American Traffic Solutions, obtained by local newspaper *The Herald* through a public records request, Kroske wrote, "We would like to get the Eyman initiative stopped before it goes to vote. […] We have hired a strong Seattle attorney firm ... but they need a Mukilteo resident to use for the filing." The e-mail further suggested that the mayor could serve that role, but "a resident might look better."[132]

  The law firm ended up representing a client organization called Mukilteo Citizens for Simple Government, which apparently consists of only one local member, who does not respond to media requests for interviews.[133]

  Bill Kroske was indefinitely suspended from American Traffic Solutions after *The Herald* revealed that he had been falsely representing himself as a disinterested local Snohomish County resident on its website who supported camera systems and attacked camera detractors—and not revealing that he was in fact an executive of the company that was working to defend its contracts by preventing citizen votes over camera systems.[134]

Protecting the Public in Privatized Traffic Law Enforcement Deals

The experience of cities that have privatized aspects of their traffic law enforcement duties in recent years shows major risks involved in privatization deals. Bad deals can erode a city's authority to set its own traffic safety goals and leave taxpayers saddled with millions of dollars in unanticipated costs.

To prevent bad deals, governments should avoid deals with private firms that constrain their discretion about how to protect public safety. Automated traffic enforcement should be used solely as a tool for enhancing traffic safety—not a cash cow for municipalities or private firms. Instead, local governments across the United States should embrace some basic principles governing traffic enforcement privatization deals.

1. **Cities should put public safety first in decisions regarding enforcement of traffic laws.** Safety, not the potential to generate revenue, should guide local governments' decisions on outsourcing traffic enforcement. Local governments should base decisions about these systems only from a safety standpoint and continue to evaluate system performance over time. For example, a bipartisan bill considered in California would have "prohibited a governmental agency that proposes to install or operate an automated traffic enforcement system from considering revenue generation, beyond recovering its actual costs of operating the system, as a factor when considering whether or not to install or operate a system within its local jurisdiction."[135]

2. **Evaluate automated traffic enforcement against alternative options.** Local governments should evaluate automated traffic enforcement alongside other options for improving traffic safety based on a thorough safety performance assessment. For example, re-engineering intersections or changing the timing of yellow lights may, in some circumstances, be a more effective way of reducing accidents than installing red-light cameras. Similarly, "traffic calming" measures and/or improved facilities for pedestrians and bicyclists may be more effective solutions to protect the public from

speeding or careless drivers than more vigorous enforcement of traffic laws on poorly designed roads.

3. **Local governments should ensure that contract language is free of conflicts of interest.** Governments should obtain the resources necessary—including experienced legal counsel—to negotiate agreements with companies, rather than relying on stock language drafted by camera vendors. Governments should not assume that the language from other municipalities' contracts is a good basis for their own contracts.

4. **Avoid incentives for vendors that are based on the volume of tickets or fines.** Governments should ensure that contract payment terms do not include arrangements that share revenue on a per-ticket basis, whether they are capped or not. Recognizing the potential for abuse with these types of contracts, several states have outlawed fee-per-ticket arrangements, including California in 2004, Texas in 2007, Maryland in 2006, and Florida in 2010. Other states that have authorized or are considering authorizing privatized traffic law enforcement should also ban per-ticket payment schemes.

5. **Public officials should retain complete control over all transportation policy decisions.** Local governments should not sign contracts that stipulate the duration of yellow traffic signals, the enforcement of right turn violations, the placement of camera systems, or that proscribe the use of alternative methods to increase safety on any public road. Communities should not face steep financial penalties as a price to exercise this right of self-determination.

6. **Local governments should always retain the ability to withdraw from a contract early if dissatisfied with the service or its effects.** Contracts should include language allowing penalty-free early termination in the event that a camera system fails to achieve community goals. This creates a risk for vendors, but it also creates an incentive for vendors to avoid issuing violations that citizens will see as unfair. Vendors must rely on the excellence of their service to keep localities interested in retaining their business. Communities' ability to decide how law-enforcement decisions get implemented is not a right that a contract should be able to trade away.

7. **The process of contracting with vendors must be completely open with ample opportunity for empowered public participation.** Governments considering automatic traffic enforcement systems should announce those intentions and explain the rationale on safety grounds before soliciting bids. Governments should ensure that citizens are involved with any decision about traffic law enforcement privatization from the earliest stages. Public officials should publicly acknowledge any gifts or campaign contributions from vendors well before signing any contracts. Contracts about automated traffic enforcement should not be insulated from the ballot question or referendum process, where it exists.

8. **The outcome of traffic enforcement contracts should be fully transparent and accessible online.** Information about the number of citations, the number of rejected citations, the number of fines, and the amount of fine revenue going to the city and the vendor should be provided online

and broken down for every approach or intersection, including past information. Contractors already track this information. Citizens should be empowered to scrutinize these outcomes and to pose questions based on the data that will be promptly addressed by the vendor. Vendors should list this information on a website whose address is listed on every ticket. Those websites should also detail the criteria the company uses to decide which cars receive infractions and which infractions to reject. Local governments should evaluate the effectiveness of camera systems on safety and publish the results.

9. **Information gathered by traffic enforcement vendors about individual vehicles and drivers should not be permitted for other uses.** In the course of operating a traffic enforcement system, vendors may gather substantial information about individual drivers, vehicle owners and their whereabouts. Generally, contracts limit the ability of companies to use the information they obtain during the course of operating camera systems. However, governments must remain vigilant in preventing intentional or unintentional misuse of this information. Contractors who participate in law-enforcement should not use this position to profit from exposure to confidential information about individuals and their vehicles. These photos and other information should not be used for any other purpose than enforcement of safety rules, and must not be sold or leased to other parties. Vendors must have a plan to regularly attest compliance with requirements to eliminate this information as it becomes possible, and they should be held responsible if personal data is stolen, distributed or made available to other private parties.

10. **States should consider establishing standards to help cities avoid contracting for automated enforcement systems that are not justified or when alternatives make more sense.** States already maintain a host of rules for best practices, such as minimum traffic signal times and visibility standards. Following the Federal Highway Administration's guidance, states should consider creating rules to ensure that localities thoroughly consider other ways to improve safety before introducing automated traffic enforcement.

Privatization and Transparency

Privatizing traffic law enforcement should not compromise transparency, but should be operated as openly as if the service were provided by a public entity. Arguably, the fact that decisions are made by companies that are not under normal public oversight makes the need for extraordinary transparency even greater. Unlike a public entity, a private operator is not subject to Freedom of Information Act (FOIA) requests from the public. It may also seek to prevent public scrutiny by declaring certain information to be a "proprietary business secret." This should not be allowed.

Appendix: Communities Outsourcing Aspects of Traffic Law Enforcement

The following lists were compiled from lists of clients provided by the two largest camera vendors, Redflex and American Traffic Solutions, supplemented by a listing developed by the Insurance Institute for Highway Safety. See "Does Anyone Know How Many Communities Have Automated Traffic Enforcement Contracts?" on page 10 for more details. The tables begin on the following page.

Note on Appendix Table 1:
State totals should be treated as approximations since they are based on insurance agency lists of communities where red-light camera systems are used, plus additional communities from company lists of automated traffic system clients. Each community does not necessarily issue automated traffic tickets currently. Further discussion of the limitations of this data can be found in the text box "Does Anyone Know How Many Communities Have Automated Traffic Enforcement Contracts?" on page 10, and its footnotes. The data does not include contracting that began after September 2011.

Appendix Table 1: Number of Jurisdictions with Traffic Law Enforcement Deals, by State

State	Number of Jurisdictions
Alabama	5
Arizona	21
California	105
Colorado	14
Delaware	11
District of Columbia	1
Florida	95
Georgia	17
Illinois	84
Iowa	8
Louisiana	12
Maryland	41
Massachusetts	4
Minnesota	1

State	Number of Jurisdictions
Missouri	43
New Jersey	49
New Mexico	4
New York	7
North Carolina	4
Ohio	16
Oregon	12
Pennsylvania	1
Rhode Island	1
South Dakota	1
Tennessee	26
Texas	74
Virginia	9
Washington	26

Note on Appendix Table 2:
Each listed community does not necessarily issue automated traffic tickets currently. The data is based on insurance agency lists of communities where red-light camera systems are used, plus company lists of automated traffic system client communities. Further discussion of the limitations of this data can be found in the text box "Does Anyone Know How Many Communities Have Automated Traffic Enforcement Contracts?" on page 10, and its footnotes. The data does not include contracting that began after September 2011.

Appendix Table 2: List of Jurisdictions with Traffic Law Enforcement Deals

State	Jurisdiction
Alabama	Center Point
	Clay
	Montgomery
	Opelika
	Selma
Arizona	Ahwatukee Foothills
	Avondale
	Chandler
	El Mirage
	Eloy
	Globe
	Marysville
	Mesa
	Paradise Valley
	Peoria
	Phoenix
	Prescott Valley
	Scottsdale
	Show Low
	Sierra Vista
	Star Valley
	Superior
	Surprise
	Tempe
	Tucson
	Pima County
California	Arleta
	Bakersfield

State	Jurisdiction
CA (cont'd)	Baldwin Park
	Bell Gardens
	Belmont
	Berkeley
	Beverly Hills
	Capitola
	Cathedral City
	Cerritos
	Citrus Heights
	Commerce
	Compton
	Corona
	Costa Mesa
	Covina
	Culver City
	Cupertino
	Daly City
	Davis
	Del Mar
	El Cajon
	El Monte
	Elk Grove
	Emeryville
	Encinitas
	Escondido
	Fairfield
	Fremont
	Fresno

State	Jurisdiction
CA (cont'd)	Fullerton
	Garden Grove
	Gardena
	Glendale
	Grand Terrace
	Hawthorne
	Hayward
	Highland
	Huntington Beach
	Indian Wells
	Inglewood
	Laguna Woods
	Lancaster
	Long Beach
	Los Alamitos
	Lynwood
	Manteca
	Marysville
	Maywood
	Menlo Park
	Millbrae
	Modesto
	Montclair
	Montebello
	Moreno Valley
	Murrieta
	Napa
	Newark
	Oakland
	Oceanside
	Oroville
	Oxnard
	Pasadena
	Poway
	Rancho Cordova
	Rancho Cucamonga
	Redding
	Redlands

State	Jurisdiction
CA (cont'd)	Redwood City
	Rio Vista
	Riverside
	Rocklin
	Roseville
	Sacramento
	San Bruno
	San Carlos
	San Diego
	San Francisco
	San Juan Capistrano
	San Leandro
	San Mateo
	San Rafael
	Santa Ana
	Santa Clarita
	Santa Fe Springs
	Santa Maria
	Solana Beach
	South Gate
	South San Francisco
	Stockton
	Union City
	Upland
	Ventura
	Victorville
	Vista
	Walnut
	West Hollywood
	Yuba City
	Yucaipa
	Los Angeles County
	Sacramento County
	San Bernardino County
Colorado	Aurora
	Boulder
	Cherry Hills Village

State	Jurisdiction
CO (cont'd)	Colorado Springs
	Commerce City
	Denver
	E-470 Public Highway
	Fort Collins
	Greenwood Village
	Littleton
	Lone Tree
	Northglenn
	Northwest Parkway
	Pueblo
Delaware	Bear
	Bridgeville
	DELDOT
	Dover
	Elsmere
	Millsboro
	New Castle
	Newark
	Rehoboth Beach
	Seaford
	Wilmington
	Washington
Florida	Apopka
	Aventura
	Bal Harbour
	Boynton Beach
	Bradenton
	Brooksville
	Campbellton
	Casselberry
	Clearwater
	Clewiston
	Cocoa Beach
	Coral Gables
	Coral Springs
	Cutler
	Davie
	Daytona Beach

State	Jurisdiction
FL (conti'd)	DeLand
	Delray Beach
	Doral
	Dunnellon
	El Portal
	Florida City
	FL DOT
	Florida Turnpike Enterprise
	Fort Lauderdale
	Fort Myers
	Fort Pierce
	Green Cove Springs
	Gulf Breeze
	Gulfport
	Haines City
	Hallandale Beach
	Haverhill
	Hialeah
	Hialeah Gardens
	Holly Hill
	Hollywood
	Homestead
	Juno Beach
	Jupiter
	Kenneth City
	Key Biscayne
	Kissimmee
	Lake Worth
	Lakeland
	Leesburg
	Maitland
	Margate
	Medley
	Miami
	Miami Gardens
	Miami Springs
	Milton
	New Port Richey

State	Jurisdiction
FL (conti'd)	North Bay Village
	North Miami
	North Miami Beach
	Oakville
	Ocoee
	Oldsmar
	Opa-locka
	Orlando
	Orlando Orange Co. Expressway
	Palatka
	Palm Coast
	Palm Springs
	Pembroke Pines
	Penney Farms
	Pinecrest
	Plantation
	Port Richey
	Royal Palm Beach
	Sarasota
	South Pasadena
	Saint Petersburg
	Sunny Isles
	Sunrise
	Surfside
	Sweetwater
	Tallahassee
	Tamarac
	Tampa
	Temple Terrace
	Vero Beach
	Boca West
	West Miami
	West Palm Beach
	West Park
	Winter Park
	Winter Springs
	Collier County
	Hillsborough County
	Manatee County

State	Jurisdiction
FL (conti'd)	Orange County
	Palm Beach County
Georgia	Alpharetta
	Atlanta
	Decatur
	Duluth
	Griffin
	Hapeville
	Marietta
	Morrow
	Moultrie
	Roswell
	Savannah
	Thomasville
	Tifton
	Athens-Clarke County
	Clayton County
	Fulton County
	Gwinnett County
Illinois	Addison
	Algonquin
	Alsip
	Aurora
	Bedford Park
	Bellwood
	Bensenville
	Berwyn
	Blue Island
	Brookfield
	Burbank
	Cahokia
	Calumet City
	Calumet Park
	Carol Stream
	Carpentersville
	Chicago
	Cook County
	Country Club Hills
	Countryside

State	Jurisdiction
IL (conti'd)	Des Plaines
	East Dundee
	East Saint Louis
	Elgin
	Elmwood Park
	Evergreen Park
	Forest Park
	Fox Lake
	Franklin Park
	Geneva
	Glendale Heights
	Granite City
	Gurnee
	Highland Park
	Hoffman Estates
	Hometown
	Homewood
	Justice
	Lake in the Hills
	Lake Zurich
	Libertyville
	Lincolnwood
	Lisle
	Lyons
	Markham
	Maywood
	Melrose Park
	Morton Grove
	Naperville
	New Lenox
	North Chicago
	North Riverside
	Northfield
	Northlake
	Oak Forest
	Oak Lawn
	Olympia Fields
	Orland Park
	Palatine

State	Jurisdiction
IL (conti'd)	Palos Heights
	Plainfield
	Richton Park
	Roselle
	Schiller Park
	Skokie
	South Chicago Heights
	South Elgin
	South Holland
	Statewide work zones
	Saint Charles
	Stickney
	Streamwood
	Summit
	Tinley Park
	Villa Park
	Warrenville
	Wauconda
	Waukegan
	Westchester
	Western Springs
	Wheeling
	Willowbrook
	Winfield
	Worth
	Cook County
Iowa	Cedar Rapids
	Clive
	Council Bluffs
	Davenport
	Des Moines
	Fort Dodge
	Muscatine
	Sioux City
Louisiana	Ascension Parish
	Baker
	Baton Rouge
	Broussard
	Denham Springs

State	Jurisdiction
LA (cont'd)	Gretna
	Jefferson Parish
	Lafayette
	Livingston Parish
	New Orleans
	Westwego
	Zachary
Maryland	Annapolis
	Anne Arundel
	Baltimore
	Bel Air
	Berwyn Heights
	Bladensburg
	Bowie
	Brentwood
	Chestertown
	Cheverly
	Chevy Chase
	College Park
	Colmar Manor
	Cottage City
	Edmonton
	Forest Heights
	Frederick
	Gaithersburg
	Greenbelt
	Hyattsville
	Landover Hills
	Laurel
	Morningside
	Mt. Rainier
	New Carrollton
	Princess Anne
	Riverdale Park
	Rockville
	Salisbury
	Silver Spring
	Statewide work zones
	Takoma Park

State	Jurisdiction
MD (cont'd)	Trappe
	University Park
	Westminster
	Anne Arundel County
	Baltimore County
	Charles County
	Howard County
	Montgomery County
	Prince George's County
	Wicomico County
Massachusetts	Blackstone
	Pittsfield
	Salem
	Saugus
Minnesota	Minneapolis
Missouri	Arnold
	Bellerive
	Bel-Nor
	Berkeley
	Beverly Hills
	Brentwood
	Bridgeton
	Calverton Park
	Charlack
	Clayton
	Columbia
	Cool Valley
	Country Club Hills
	Creve Coeur
	Dellwood
	Edmundson
	Ellisville
	Excelsior Springs
	Festus
	Florissant
	Ferguson
	Gladstone
	Grandview
	Hannibal

State	Jurisdiction
MO (cont'd)	Hazelwood
	Kansas City
	Moline Acres
	Northwoods
	Oak Grove
	Richmond Heights
	Springfield
	Saint Ann
	Saint Charles
	Saint John
	Saint Joseph
	Saint Louis
	Saint Peters
	State roads
	Sugar Creek
	Uplands Park
	Vinita Park
	Webster Groves
	Wentzville
New Jersey	Berlin
	Brick
	Bridgeton
	Bound Brook
	Burlington
	Cherry Hill
	Cinnaminson
	Collingswood
	Deptford
	East Brunswick
	Windsor
	Edison
	Englewood Cliffs
	Glassboro
	Gloucester City
	Haddon Heights
	Hamilton
	Hasbrouck Heights
	Hillside
	Jersey City

State	Jurisdiction
NJ (cont'd)	Lawrence
	Linden
	Little Falls
	Manalapan
	Middle
	Monroe
	Morristown
	New Brunswick
	Newark
	Ocean
	Palisades Park
	Passaic
	Paterson
	Pennsauken
	Perth Amboy
	Phillipsburg
	Piscataway
	Pohatcong
	Rahway
	Roseland
	Roselle Park
	New Brunswick
	Springfield
	Stratford
	Union City
	Union
	Wayne
	Woodbridge
	Woodland Park
New Mexico	Albuquerque
	Las Cruces
	Rio Rancho
	Santa Fe
New York	Buffalo
	New York
	Port Jefferson Station
	Rochester
	Yonkers
	Nassau County

State	Jurisdiction
NY (cont'd)	Suffolk County
North Carolina	Cary
	Knightdale
	Raleigh
	Wilmington
Ohio	Akron
	Ashtabula
	Cleveland
	Columbus
	Dayton
	East Cleveland
	Hamilton
	Middletown
	Northwood
	Parma
	Parma Heights
	South Euclid
	Springfield
	Toledo
	Trotwood
	West Carrollton City
Oregon	Albany
	Beaverton
	Hillsboro
	Medford
	Milwaukie
	Newberg
	Portland
	Roseburg
	Salem
	Sherwood
	Saint Helens
	Tualatin
Pennsylvania	Philadelphia
Rhode Island	Providence
South Dakota	Sioux Falls
Tennessee	Bluff City
	Chattanooga
	Clarksville

State	Jurisdiction
TN (cont'd)	Cleveland
	Farragut
	Gallatin
	Germantown
	Huntingdon
	Jackson
	Johnson City
	Jonesborough
	Kingsport
	Knoxville
	McKenzie
	Medina
	Memphis
	Millington
	Morristown
	Mount Carmel
	Mount Juliet
	Murfreesboro
	Oak Ridge
	Red Bank
	Selmer
	Union City
	Shelby County
Texas	Allen
	Amarillo
	Arlington
	Austin
	Balch Springs
	Balcones Heights
	Bastrop
	Baytown
	Beaumont
	Bedford
	Burleson
	Carrollton
	Cedar Hill
	Cleveland
	Conroe
	Coppell

State	Jurisdiction
TX (cont'd)	Corpus Christi
	Dallas
	Dalworthington Gardens
	Denton
	Diboll
	Duncanville
	El Paso
	Elgin
	Farmers Branch
	Forney
	Fort Worth
	Frisco
	Galveston
	Garland
	Grand Prairie
	Granite Shoals
	Haltom City
	Harlingen
	Harris County Toll Road
	Humble
	Huntington
	Hurst
	Hutto
	Irving
	Jersey Village
	Killeen
	Lake Jackson
	Lancaster
	League City
	Lewisville
	Little Elm
	Longview
	Lufkin
	Magnolia
	Marshall
	McKinney
	Mesquite
	Mission
	North Richland Hills

State	Jurisdiction
TX (cont'd)	Oak Ridge North
	Pharr
	Plano
	Port Lavaca
	Richardson
	Richland Hills
	Roanoke
	Round Rock
	Rowlett
	South Houston
	Southlake
	Splendora
	Sugar Land
	Terrell
	Tomball
	University Park
	Watauga
	Willis
	Montgomery County
Virginia	Alexandria
	Chesapeake
	Fairfax
	Falls Church
	Newport News
	Norfolk
	Virginia Beach
	Albemarle County
	Arlington County
Washington	Auburn
	Bellevue
	Bellingham
	Bremerton
	Burien
	Des Moines
	Everett
	Federal Way
	Fife
	Issaquah
	Lacey

State	Jurisdiction
WA (cont'd)	Lake Forest Park
	Lakewood
	Longview
	Lynnwood
	Monroe
	Moses Lake
	Mountlake Terrace
	Puyallup
	Redmond
	Renton
	SeaTac
	Seattle
	Spokane
	Tacoma
	Wenatchee

Notes

1 United States Government Accountability Office, *State and Local Governments' Fiscal Outlook*: *April 2011 Update*, GAO-11-495SP, April 2011.

2 An example of a police department that operates automated traffic enforcement without outsourcing operations is the Illinois State Police speed camera van program to deter speeding alongside highway worksites. Starting in 2006, vans set up by state police at roadside worksites have issued thousands of annual tickets. According to a state press release, "First time offenders face a $375 fine; second time offenders face a $1,000 fine and the loss of their driver's license for 90 days". (Illinois State Police, *Motorists Urged to Slow Down in Work Zones As 2007 Highway Construction Season Kicks Off* (press release), 4 April 2007.) However, automated enforcement systems are overwhelmingly operated by private firms, as confirmed in personal communication with Jeffrey Shaw, Intersections Program Manager for the Office of Safety at the Federal Highway Administration, October 7, 2011.

3 Insurance Institute for Highway Safety, *Q&A: Red Light Cameras*, June 2011, available at www.iihs.org/research/qanda/rlr.html.

4 These signs are covered by the federal Manual on Uniform Traffic Control Devices: U.S. Department of Transportation, Federal Highway Administration, "Speed Limit and Photo Enforcement Signs and Plaques," in *Manual on Uniform Traffic Control Devices*, Part 2, Figure 2B-3, 2009; and Jeffrey A. Lindley, U.S. Department of Transportation, Federal Highway Administration, *Interim Approval for Optional Use of a Traffic Signal Photo Enforced Sign (IA-12)*, memorandum to Directors of Field Services, et al, 12 November 2010.

5 National Highway Traffic Safety Administration, *Fatality Analysis Reporting System*, downloaded from www-fars.nhtsa.dot.gov/Main/index.aspx on 28 September 2011.

6 U.S. Department of Transportation, Federal Highway Administration, Office of Safety, *Intersection Safety* (presentation), downloaded from safety.fhwa.dot.gov/intersection/resources/intsafpst092609/long/ on 10 September 2011.

7 The most recent data revealed that in 2009, intersections represented 40

percent of all crashes, 46 percent of injury crashes and 22 percent of fatal crashes. U.S. Department of Transportation, Federal Highway Administration, *Traffic Safety Facts 2009*: *A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System*, DOT HS 811 402, September 2011.

8 U.S. Department of Transportation, Federal Highway Administration, *Manual of Uniform Traffic Control Devices*, Frequently Asked Questions - Part 4 - Highway Traffic Signals, downloaded from mutcd.fhwa.dot.gov/knowledge/faqs/faq_part4.htm#q1 on 11 October 2011.

9 See note 7, *Traffic Safety Facts 2009*.

10 According to most recently available 2009 data available at: U.S. Department of Transportation, Federal Highway Administration, *Red-Light Running Fatalities (2000-2009)*, downloaded from safety.fhwa.dot.gov/intersection/redlight/data/rlr_fatal/ on 11 October 2011.

11 See note 6.

12 B. E. Porter et al for Daimler Chrysler, the American Trauma Society and the Federal Highway Administration, *A Nationwide Survey of Red-Light Running: Measuring Driver Behaviors for the "Stop Red-Light Running" Program*, 1999. Available at safety.fhwa.dot.gov.

13 Insurance Institute for Highway Safety, *Communities Using Red Light and/or Speed Cameras*, downloaded from www.iihs.org/laws/auto_enforce_cities.aspx on 11 September 2011.

14 For instance, Roseburg, Oregon is listed by both Redflex and IIHS, but according to media accounts there was only an initial motion to proceed approved by the city council which has yet to receive necessary approval from the Oregon Department of Transportation. A second vote for red-light cameras at a different intersection was rejected by the city council in late September 2011. (Dan Bain, "Red Light Cam Gets a Red Light from City," *KPIC News*, 27 September 2011.) The U.S. client list from ATS includes Leesburg, Florida and does not qualify that listing, as it does for some others, as a "selection" or as an "award pending contract." However, a newspaper article from April 2011 states that Leesburg had considered cameras but rejected the idea. (Brad Buck, "Bills Would Ban Red-Light Cameras," *Daily Commercial*, 8 April 2011.)

15 National Academies of Science, Transportation Research Board, National Cooperative Highway Research Program, *Impact of Red Light Camera Enforcement on Crash Experience: A Synthesis of Highway Practice*, 2003.

16 See note 13.

17 This figure was generated by adding up the populations of jurisdictions with automated traffic law enforcement systems as shown in Figure 1 on page 11, per U.S. Census Bureau, *Census 2000*, contained within ESRI, *ArcGIS 9.2: ESRI Data & Maps: USA Base Map*, 2005.

18 See note 3.

19 Ari Bloomekatz, "L.A. Council Votes to Drop Red-Light Camera Program," *Los Angeles Times*, 27 July 2011.

20 Jackie Bueno Sousa, "Pressure Building over Red-Light Cameras," *Miami Herald*, 18 August 2010.

21 See note 13.

22 Ibid.

23 The National Conference of State Legislatures, *State Traffic Safety Legislation Database: Automated Enforcement/Photo Monitoring*, downloaded from www.ncsl.org/?tabid=13599 on 6 September 2011.

24 This map was generated using the list of jurisdictions with private traffic law enforcement systems found in Appendix 1, which was matched with jurisdiction populations per U.S. Census Bureau, *Census 2000*, contained within ESRI, *ArcGIS 9.2: ESRI Data & Maps: USA Base Map*, 2005.

25 U.S. Conference of Mayors, "In

Support of the Use of Red Light and Speed Safety Cameras to Reduce Injuries and Fatalities on Our Nation's Roads," *Adopted Resolutions: 79th Annual Conference of Mayors*, Baltimore, MD, 17-21 June 2011.

26 For example, Redflex plans to "Focus on enhancing sales effort in the USA to drive future growth," per: Redflex Holdings Limited, *Investor Briefing: August 2011*, 23 August 2011.

27 Redflex Holdings Limited, *Annual Report 2010*, October 2010.

28 Redflex Holdings Limited, *Investor Briefing: August 2011*, 23 August 2011.

29 See note 27.

30 Assuming an exchange rate of 0.95 Australian dollars per U.S. dollar. See note 28.

31 American Traffic Solutions, *28 Communities Sign or Extend Contracts with American Traffic Solutions in 2nd Quarter for Road Safety Camera Programs* (press release), 8 July 2011.

32 Ibid.

33 See note 28.

34 The Federal Highway Administration has found that camera systems offer a slight net benefit, increasing rear-end crashes, but decreasing other injury crashes. (U.S. Department of Transportation, Federal Highway Administration, *Safety Evaluation of Red-Light Cameras*, FHWA-HRT-05-048, April 2005.) The Texas Transportation Institute comes to a similar conclusion. (Troy D. Walden, Texas Transportation Institute for the Texas Department of Transportation, *Evaluation of Photographic Traffic Signal Enforcement in Texas*, June 2011). Industry and trade groups have produced research showing larger benefits. (Wen Hu, Anne T. McCartt, Eric R. Teoh, Insurance Institute for Highway Safety, *Effects of Red Light Camera Enforcement on Fatal Crashes in Large U.S. Cities*, February 2011; Affiliated Computer Services, *Comprehensive Photo Enforcement* (fact sheet), 2010, downloaded from www.acs-inc.com/transportation/ov_automated_photo_enforcement.aspx). Researchers at the University of Florida have published criticisms of the methodologies of other studies, and claim that the best-designed analyses show net negative effects. (Barbara Langland-Orban et al., "Red Light Running Cameras: Would Crashes, Injuries and Automobile Insurance Rates Increase If They Are Used in Florida?" *Florida Public Health Review*, Volume 5: 1-7, 2008; Barbara Langland-Orban et al., "An Update on Red Light Camera Reseach: The Need for Federal Standards in the Interests of Public Safety," *Florida Public Health Review*, Volume 8: 1-9, 2011.)

35 See note 27.

36 Affiliated Computer Services, *Agreement Between the City of Tallahassee and ACS State and Local Solutions, Inc. for Red Light Camera Safety Program Enforcement*, 11 December 2009. The current contract, amended after the passage of a state law that made changes to the first version necessary, states that "only sites that validate out to a mutually agreed number of violations per day will be selected unless otherwise mutually agreed by the City and Vendor." Affiliated Computer Services, *Amendment 1 to the Agreement Between the City of Tallahassee and ACS State and Local Solutions, Inc. for Red Light Camera Safety Program Enforcement*, 23 August 2010.

37 U.S. Department of Transportation, Federal Highway Administration, "Using Automated Enforcement to Reduce Red-Light Running," *Intersection Safety Issue Briefs* 7, FHWA-SA-10-005, November 2009. See step five.

38 Rick Brand and Kerry Murakami, "Suffolk Vote on Red Light Cameras Expected," *Newsday*, 16 August 2011.

39 Associated Press, "Red-Light Cameras Raise Some Red Flags: Some Cities, Vendors Are Profiting but Unclear if Safety Is Improving," *MSNBC.com*, 13 March 2009.

40 Rebekah Allen, "Safety Measure or Money-Maker? Wreck Data Still Inconclusive," *The Advocate*, 2 January 2011.

41 "City Contract Flashes Red Light," *Washington Times*, 22 February 2005.

42 Ibid.

43 Ryan Randazzo, "Cities Not Profiting on Traffic Cameras," *Arizona Republic*, 3 July 2011.

44 Dianna Nanez, "Tempe, Redflex Battle over Driving-School Fees," *Arizona Republic*, 5 August 2011.

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