

# The Red Light District: A Look at Red Light Camera Programs<sup>1</sup>

This IPRO report examines the various issues surrounding “red light” cameras within states.

## Definitions

*Red Light Cameras:* a traffic enforcement camera that captures an image of a vehicle passing through an intersection against a red traffic light (i.e. running a red light).<sup>2</sup>

## Overview

The use of red light cameras as a means of traffic enforcement has existed since the 1980s. It was not until the early 2000s after Chicago, Illinois began using them, however, when the application of these cameras became widespread throughout the United States.<sup>3</sup> Currently, over 50 percent of states have some form of a red light camera program, with several others having cameras only in specific locations (e.g. school zones). Red-light camera technology is designed to reduce red light running, consequently leading to an increase in traffic safety.<sup>4</sup> Some states prohibit the use of red light cameras, citing that such an ordinance violates a state’s ‘home rule’ law.<sup>5</sup>

## Benefits and Costs to Red Light Cameras

### *Benefits to Red Light Cameras*

#### *Safety*

Previous research has shown that cameras substantially reduce red light violations and crashes. Studies by the Institute for Highway Safety and others have found reductions in violation rates ranging from 40 to 96 percent after the introduction of cameras.<sup>6</sup>

A 2011 study by the Institute for Highway Safety which compared large cities with red light cameras to those without found that the devices reduced the fatal red light running crash rate by 24 percent and the rate of all types of fatal crashes by 17 percent.<sup>7</sup>

Front-into-side collisions at intersections declined by 32 percent overall, the crash type most closely associated with red light running, and front-into-side crashes involving injuries fell by 68 percent.<sup>8</sup>

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<sup>2</sup> “Q&As: Red light cameras,” *Insurance Institute for Highway Safety*. Web. 29 October 2011.

<sup>3</sup> “Red-Light Camera Enforcement: History and Background,” Web. 29 October 2011. <[http://www.cityofchicago.org/city/en/depts/cdot/provdrs/red-light\\_cameraenforcement.html](http://www.cityofchicago.org/city/en/depts/cdot/provdrs/red-light_cameraenforcement.html)>.

<sup>4</sup> Retting, R.A., S.Y. Kyrychenko. 2002. Reductions in injury crashes associated with red light camera enforcement in Oxnard, California. *American Journal of Public Health* 92:1822-25

<sup>5</sup> Carter, Steve. “Official Opinion 2008-3: Power of a Municipality to Implement a ‘Red Light Camera’ Program,” Office of the Attorney General, State of Indiana. <<http://www.thenewspaper.com/rlc/docs/2008/in-agopinion.pdf>>., Home Rule definition: an invalid attempt to locally regulate conduct that is already regulated by a state agency.

<sup>6</sup> Retting, R.A., A.F. Williams, C.M. Farmer, A.F. Feldman. 1999. Evaluation of red light camera enforcement in Fairfax, Va., USA. *ITE Journal* 69:30-34.

<sup>7</sup> Hu, W., A.T. McCartt, E.R. Teoh. 2011. Effects of red light camera enforcement on fatal crashes in large US cities. Arlington, VA: Insurance Institute for Highway Safety.

### Increased Revenues for Cities

The profit from these traffic violations provides cities with extra revenues. In St. Peters, Missouri, red light cameras resulted in over 3,000 tickets issued from January 2007 to September 2008, and drew in a total of \$235, 973.<sup>9</sup>

### Law Enforcement Efficiency

The use of red light cameras significantly decreases the need for officers to patrol high-risk intersections. Red light cameras provide safe and consistent enforcement at a reasonable cost, while allowing officers to focus on other enforcement issues.<sup>10</sup> Although the cost for one red light camera is around \$50,000, plus an additional \$5,000 installation fee, these initial startup costs can be offset by fines paid by violators, savings from crashes prevented, and by freeing police to focus on other enforcement efforts.<sup>11</sup>

### Costs to Red Light Cameras

#### Safety

Some studies have reported that while red light cameras reduce front-into-side collisions and overall injury crashes, they can increase rear-end crashes.<sup>12</sup>

A study sponsored by the Federal Highway Administration evaluated red light camera programs in seven cities. The study found that, overall, right angle crashes decreased by 25 percent while rear-end collisions increased by 15 percent (see Figure 1).<sup>13</sup> However, rear-end collisions tend to be much less severe than front-end crashes, so the net effect is positive.<sup>14</sup>

### Privatization of Enforcement

Not all cities make money off of the tickets produced by the red light cameras. In Clive, Iowa, the red light camera program generated nearly \$40,000 between July 2006 and March 2007, but all of that money went to the camera company.<sup>15</sup> The contract deals sometimes prevent local governments from acting in the best interests of their citizens. Some contracts restrict police from taking other measures to reduce red light running, such as lengthening the yellow light.<sup>16</sup> Some contracts require cities to share revenue with the private company on a per-ticket basis, so the more tickets a camera system issues, the more profit the vendor collects.<sup>17</sup>

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<sup>8</sup> Retting, R.A., S.Y. Kyrychenko. 2002. Reductions in injury crashes associated with red light camera enforcement in Oxnard, California. *American Journal of Public Health* 92:1822-25.

<sup>9</sup> "Red-Light Cameras Raise Some Red Flags," Web. 29 October 2011. <[http://www.msnbc.msn.com/id/29681527/ns/us\\_news-life/t/red-light-cameras-raise-some-red-flags/](http://www.msnbc.msn.com/id/29681527/ns/us_news-life/t/red-light-cameras-raise-some-red-flags/)>.

<sup>10</sup> "Transportation/Red Light Camera Program," City of Baltimore. Web. 9 November 2011.

<http://www.baltimorecity.gov/Government/AgenciesDepartments/Transportation/RedLightCameraProgram.aspx>

<sup>11</sup> "Red Light Cameras," Web. 9 November 2011. [http://www.siliconimaging.com/red\\_light\\_cameras.htm](http://www.siliconimaging.com/red_light_cameras.htm)

<sup>12</sup> Council, F., B. Persaud, K. Eccles, C. Lyon, M. Griffith. 2005. Safety evaluation of red-light cameras. Report no. FHWA HRT-05-048. Washington, DC: Federal Highway Administration.

<sup>13</sup> Ibid.

<sup>14</sup> Hu, W., A.T. McCartt, E.R. Teoh. 2011. Effects of red light camera enforcement on fatal crashes in large US cities. Arlington, VA: Insurance Institute for Highway Safety.

<sup>15</sup> "Red-Light Cameras Raise Some Red Flags," Web. 29 October 2011. <[http://www.msnbc.msn.com/id/29681527/ns/us\\_news-life/t/red-light-cameras-raise-some-red-flags/](http://www.msnbc.msn.com/id/29681527/ns/us_news-life/t/red-light-cameras-raise-some-red-flags/)>.

<sup>16</sup> Copeland, Larry. "Red-Light Traffic Camera Deals Under Scrutiny," Web. 29 October 2011.

<<http://www.usatoday.com/news/nation/story/2011-10-26/red-light-camera-deals/50943554/1>>.

<sup>17</sup> Ibid.

## State Action

### *Iowa*

During the 2011 session, an evaluation of red light camera programs by the Midwest Transportation Consortium was cited by the Transportation Subcommittee as key to defeating a bill that would have prohibited such programs in the state. This evaluation yielded results that red light running crashes decreased by 40 percent while all types of crashes decreased by 20 percent with the implementation of red light cameras.<sup>18</sup> Despite this, Iowa currently has no statewide laws for red light cameras.<sup>19</sup> Red light cameras that appear in the state are run by programs under local ordinances rather than state law.<sup>20</sup>

The most common arrangement for areas that do utilize these cameras consists of private companies installing and maintaining the system and local police officers reviewing the possible violations. The revenue created from the tickets issued is split between the private company and the city that the red light camera is in.<sup>21</sup>

### *Nevada*

Nevada prohibits the use of all imaging equipment unless it is hand held by an officer or installed in a vehicle or facility of a law enforcement agency.<sup>22</sup> The Nevada Senate rejected the proposal to install red light cameras due to the belief that it eliminates a citizen's right to due process essentially; the citizen is guilty until proven innocent rather than vice versa.<sup>23</sup>

### *South Dakota*

No state law for red light cameras exists in South Dakota.<sup>24</sup> The only program operating in the state is in Sioux Falls but it has faced legality issues.<sup>25</sup> In April 2002, Sioux Falls adopted an ordinance that included an automated ticketing program operated under a contract with a company called Redflex.<sup>26</sup> In 2006, a South Dakota motorist was ticketed for making a prohibited right turn on a red light. The motorist appealed the fine and failed so the motorist filed a class action suit against the city.<sup>27</sup> In July 2010, red light cameras in Sioux Falls were turned off after a circuit judge's decision made

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<sup>18</sup> "Study Shows Red Light Cameras in Iowa Save Lives and Reduce Injuries." *RITA | RDT | University Transportation Centers (UTC)*. Web. 11 Nov. 2011. <[http://utc.dot.gov/publications/spotlight/2011\\_10/html/spotlight\\_1110.html](http://utc.dot.gov/publications/spotlight/2011_10/html/spotlight_1110.html)>.

<sup>19</sup> "Automated Enforcement Laws." *IIHS-HLDI: Crash Testing & Highway Safety*. Web. 11 Nov. 2011. <[http://www.iihs.org/laws/automated\\_enforcement.aspx](http://www.iihs.org/laws/automated_enforcement.aspx)>.

<sup>20</sup> "Iowa Highway Safety Laws." *Governors Highway Safety Association*. Web. 12 Nov. 2011. <<http://www.ghsa.org/html/stateinfo/bystate/ia.html>>.

<sup>21</sup> "Iowa City Headed toward Red-light Cameras." *The Cedar Rapids Gazette*. Web. 11 Nov. 2011. <<http://thegazette.com/2011/08/01/iowa-city-headed-toward-red-light-cameras/>>.

<sup>22</sup> Ibid.

<sup>23</sup> "Nevada Red Light Cameras," *TheNewspaper.com*, Web. 13 November 2011. <<http://www.thenewspaper.com/news/17/1741.asp>>.

<sup>24</sup> "State Speed and Red Light Camera Laws." *Governors Highway Safety Association*. Web. 11 Nov. 2011. <[http://www.ghsa.org/html/stateinfo/laws/auto\\_enforce.html](http://www.ghsa.org/html/stateinfo/laws/auto_enforce.html)>.

<sup>25</sup> "South Dakota Highway Safety Laws." *Governors Highway Safety Association*. Web. 11 Nov. 2011. <<http://www.ghsa.org/html/stateinfo/bystate/sd.html>>.

<sup>26</sup> "South Dakota Court Rules Against Red Light Cameras." *TheNewspaper.Com: Front Page*. Web. 12 Nov. 2011. <<http://www.thenewspaper.com/news/31/3177.asp>>.

<sup>27</sup> "Red Light Cameras Turned off in South Dakota, Less Likely in Iowa" *KCRG-TV9*. Web. 11 Nov. 2011. <<http://www.kcrg.com/news/local/Red-Light-Cameras-Turned-off-in-South-Dakota-Less-Likely-in-Iowa-97890649.html>>.

stated that the city’s ordinance conflicts with state law and violates procedural due process because of the automated ticketing system.<sup>28</sup>

*Utah*

Utah is one of many states that prohibit the widespread use of red light cameras. Red light cameras require local ordinances and are only allowed in school zones or where the speed limit is less than 30 miles per hour.<sup>29</sup> In order for a citizen to receive a citation, however, an officer must be present.

**Figure 1**<sup>30</sup>  
Collision Types and Rates

<b>Collision Type</b>	<b>Collision Rate</b>
Front-end	Decrease of 25 percent
Rear-end	Increase of 15 percent

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<sup>28</sup> “Articles South Dakota Declares Its Red Light Cameras Illegal –‘Without the Necessary Approval from the State Legislature the ‘automated Ticketing Machines’ Were Deemed Illegal.’” *New World Order Report Home*. Web. 11 Nov. 2011. <<http://newworldorderreport.com/News/tabid/266/ID/4240/South-Dakota-Declares-its-Red-Light-Cameras-Illegal-Without-the-necessary-approval-from-the-state-legislature-the-automated-ticketing-machines-were-deemed-illegal.aspx>>.

<sup>29</sup> Insurance Institute for Highway Safety. Web. 13 November 2011. <<http://www.iihs.org/laws/StateLaws.aspx?StateAbbr=UT>>.

<sup>30</sup> Hu, W., A.T. McCart, E.R. Teoh. 2011. Effects of red light camera enforcement on fatal crashes in large US cities. Arlington, VA: Insurance Institute for Highway Safety.

**Table 1<sup>31</sup>**  
Red Light Camera Laws by State

State	Red Light Program	Criteria	Restrictions
Alabama	X	Limited to Specific Locations	
Alaska			
Arizona	X	Statewide	
Arkansas			Prohibited except for school zones
California	X	Statewide	
Colorado	X	Statewide	
Connecticut			
Delaware	X	Statewide	
D.C.	X	District wide	
Florida	X	Statewide	
Georgia	X	Statewide	
Hawaii			
Idaho			
Illinois	X	Local Ordinance	
Indiana			Prohibited
Iowa	X	Local Ordinance	
Kansas			
Kentucky			
Louisiana	X		
Maine			Prohibited
Maryland	X	Statewide	
Massachusetts			
Michigan			Prohibited
Minnesota			
Mississippi			Prohibited
Missouri	X	Missouri DOT Policy <sup>32</sup>	
Montana			Prohibited
Nebraska			
Nevada			Prohibited
New Hampshire			Prohibited
New Jersey	X	Local Ordinance	
New Mexico	X	Limited	
New York	X	Local Ordinance	
North Carolina	X	Limited	
North Dakota			
Ohio	X	Local Ordinance	
Oklahoma			
Oregon	X	Local Ordinance	
Pennsylvania	X	Limited to Philadelphia	
Rhode Island	X	Statewide	
South Carolina			Prohibited
South Dakota	X	Limited to Sioux Falls	
Tennessee	X	Statewide	
Texas	X	Local Ordinance	
Utah			Prohibited except for school zones
Vermont			
Virginia	X	Local Ordinance	
Washington	X	Limited	
West Virginia			Prohibited
Wisconsin			Prohibited
Wyoming			

This report was prepared in December 2011 by the Iowa Policy Research Organization (IPRO), a non-partisan public policy undergraduate group at the University of Iowa. For additional research on this or other issues, please visit our website at <http://www.uiowa.edu/~ipro/> or contact [rene-rocha@uiowa.edu](mailto:rene-rocha@uiowa.edu).

<sup>31</sup> "Speed and Red Light Camera Laws," Governor's Highway Safety Association, Web. 29 October 2011 <[http://www.ghsa.org/html/stateinfo/laws/auto\\_enforce.html](http://www.ghsa.org/html/stateinfo/laws/auto_enforce.html)>. See also <[http://www.iihs.org/laws/automated\\_enforcement.aspx#NV](http://www.iihs.org/laws/automated_enforcement.aspx#NV)>.

<sup>32</sup> "Automated Traffic Enforcement Policy," Web. 2 November 2011. <<http://www.modot.mo.gov/documents/2011AECCommissionPolicy.pdf>>.