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**INSIDE THIS BRIEF**

- Each year 3 million people have their cars stolen or broken into.
- Parking facilities have particularly high rates of car crime—almost one-quarter of all car thefts.
- Could installing digital still cameras to create the perception of surveillance reduce parking facility crimes?

# Evaluation of Cameras to Prevent Crime in Commuter Parking Facilities: A Summary

Nancy G. La Vigne and Samantha S. Lowry

Car-related crimes are a pervasive problem in the United States and the costs are significant. Each year an estimated 3.3 million people have their cars stolen or broken into. In 2008, the total value of stolen cars was roughly \$6.4 billion, while another \$1.6 billion was lost through thefts from cars.<sup>1</sup>

Commuter parking facilities, where owners leave their cars unattended for most of the day, have particularly high rates of car crime (Clarke 2002; Clarke and Mayhew 1998). Almost one-quarter (23.7 percent) of car thefts and nearly 12 percent of all thefts happen in parking lots and nonresidential garages.<sup>2</sup> Despite the frequency and cost of car crime, strategies to prevent these crimes have not been well studied. This evaluation takes on one approach: the use of digital cameras, which are similar to red-light traffic cameras, to deter offenders. Researchers describe this strategy's benefits and limitations to guide practitioners aiming to reduce car crime in parking facilities.

## Digital Cameras at Metro Parking Facilities

The Washington Metropolitan Area Transit Authority (WMATA) runs the second-largest rail transit system and sixth-largest bus network in the United States.<sup>3</sup> Between 1999

and 2003, before this study began, roughly half of all serious crimes on Metro property took place in parking facilities. Car crimes were roughly split between stolen cars and thefts from cars, but crime rates were not equal across Metro stations. Just over one-third (36 percent) of the stations accounted for 80 percent of car crimes.<sup>4, 5</sup> That suggests that some stations make better targets than others—and finding out why could help prevent those crimes.

Urban Institute researchers, working with Metro Transit Police (MTP), set out to identify what parking facility characteristics and management practices might be creating opportunities for crime, analyze those findings in relation to past crimes, and identify promising crime reduction strategies. Noting the limited surveillance of Metro station parking facilities, researchers recommended the use of prominently placed cameras to deter likely offenders. To minimize costs, MTP chose to invest in digital cameras,

The evaluation's strategy relied heavily on creating the perception of greater surveillance, influencing potential criminals to believe they were more likely to get caught.

Technology is only as good as the way that it's used: cameras employed in isolation from other police work are unlikely to yield a drop in crime.

installing them at the exits of half of Metro's commuter parking lots, along with signs alerting drivers (and potential criminals) that license plate numbers and exit times were being recorded and monitored. Similar to "red light" traffic cameras, the digital cameras were equipped with motion detectors to take still photos of cars—including their license plates—as they left the facility.

This strategy relied heavily on creating the perception of greater surveillance, influencing potential criminals to believe they were more likely to get caught. In fact, due to budget constraints, only a third of the cameras were live, but the dummy cameras were expected to convey the message of surveillance.

Using cameras to deter crime is in keeping with the situational crime prevention approach to change and manage the environment rather than the underlying motivation behind criminal behavior (Clarke 1997). Cameras can increase the risk of apprehension, closing off opportunities to commit crime. The images captured by cameras can also provide information to aid in investigations.

Commuter parking lots and garages are an ideal place to test this approach because they are prime targets—open to the public and often difficult to secure. Video surveillance cameras have been used in parking facilities before, with mixed results. But prior research offers no guidance on the value of employing digital still cameras to prevent crime, making the evaluation of Metro's cameras an important contribution to the field.

### Findings

Twelve months after camera installation, researchers analyzed their impact on crime, comparing pre- and post-installation crime incidents over a 24-month period. Overall, car crimes specifically and crimes in general remained the same before and after camera installation.

These findings do not mean that cameras have no role in successful crime control

efforts; recent research suggests that video surveillance cameras are more likely to have an impact when they are highly concentrated, actively monitored, and integrated into the broader law enforcement strategy (La Vigne et al. 2011). The cameras in this study, however, were not used by MTP to aid in investigations or inform patrol allocations. Also, the pictures they recorded could not be monitored from a central location, a feature that might have enabled police to stop crimes in progress.

On a positive note, it wouldn't take much to make the camera system cost-effective. The system MTP implemented cost \$77,579, including equipment and infrastructure, maintenance, installation, and labor costs. To be worth the money spent, the camera system would have to be associated with just 12 fewer car thefts—saving enough in justice system and victimization costs to pay for itself. In other words, if the cameras deterred two thefts a month across all of Metro's parking facilities, it would take only six months to make up the system's costs. And that doesn't include the savings from preventing thefts from cars and attempts to steal cars, which often result in damage to the vehicle. WMATA might also benefit from higher revenue if customers felt safer about using Metro parking lots and garages with cameras present.

### Lessons Learned

The key finding from this study? Technology is only as good as the way that it's used: cameras employed in isolation from other police work are unlikely to yield a drop in crime. This is a critical consideration for law enforcement agencies to bear in mind when adopting or expanding camera systems.

This study also has implications for researchers aiming to partner with practitioners. Working in a real-world setting has its benefits and limitations. Researchers should be prepared for the unexpected changes, data collection limitations, and other challenges that come with practitioner partnerships. ■

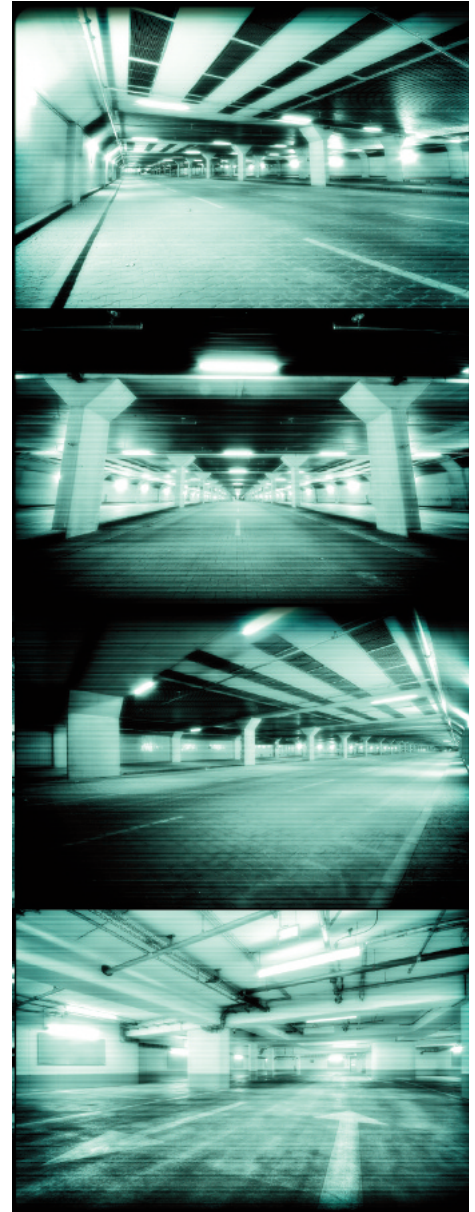
The full report “Evaluation of Camera Use to Prevent Crime in Commuter Parking Facilities: A Randomized Controlled Trial” is available at <http://www.urban.org/url.cfm?ID=412451>.

## Notes

1. Federal Bureau of Investigation, *Crime in the United States 2008*, <http://www2.fbi.gov/ucr/cius2008/about/index.html>, last modified September 2009.
2. Bureau of Justice Statistics, *Criminal Victimization in the United States, 2007 Statistical Tables*, <http://bjs.ojp.usdoj.gov/content/pub/pdf/cvuso7.pdf>, last modified March 2, 2010.
3. Washington Metropolitan Area Transit Authority, “WMATA Facts,” [http://www.wmata.com/about\\_metro/docs/metrofacts.pdf](http://www.wmata.com/about_metro/docs/metrofacts.pdf).
4. Washington Metropolitan Area Transit Authority Metro Transit Police, “Metro Transit Police Department Five-Year Crime Report 1999–2003,” [http://www.wmata.com/about/mtpd\\_crime\\_statso3.cfm](http://www.wmata.com/about/mtpd_crime_statso3.cfm).
5. While Part 1 crimes (major crimes including motor vehicle theft, attempted motor vehicle theft, robbery, and aggravated assault) occurring on WMATA property have increased every year since 2003, the percentage of Part 1 crime occurring in parking facilities remained consistent at roughly 57 percent leading up to this study’s camera installation, dropped to 53 percent in 2008, and fell dramatically to 40 percent in 2009. (Washington Metropolitan Area Metro Transit Authority Metro Transit Police, “Metro Transit Police Department Five-Year Crime Report 2005–2009,” [http://www.wmata.com/about\\_metro/transit\\_police/mtpd\\_crime\\_statso3.cfm](http://www.wmata.com/about_metro/transit_police/mtpd_crime_statso3.cfm).)

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