



**Preliminary Findings of the Statistical Evaluation of the Crime-Deterrent Effects of  
The San Francisco Crime Camera Program**

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## **Introduction**

In this report we present preliminary findings from an empirical assessment of the effect of the installation of surveillance cameras at nineteen sites throughout the city of San Francisco on serious felony crime committed within the immediate vicinity of the camera locations. We were provided data on all reported incidents from January 1, 2005 through January 28, 2008 occurring within 1,000 feet of the nineteen camera locations. Our report focuses on the seven crimes reported to the Federal Bureau of Investigation (FBI) in compliance with the Uniform Crime Reporting (UCR) program, commonly referred to as part one felony offenses. We narrow our analysis to these crimes due to their seriousness as well as because they are offenses that the cameras could likely capture on camera and thus possibly deter.

Specifically, we document the pre-post camera installations crime trends for serious violent crimes (given by the aggregation of homicide, forcible sexual offenses, robbery, and assault) and serious property crime (given by the aggregation of burglary, larceny, and motor vehicle theft). We also document separate trends for each of these individual crimes. This preliminary report documents changes in crime rates at varying distances from camera sites (within 100 feet, 100 to 200 feet, etc) to assess whether crime fell disproportionately in the areas immediately surrounding a site as well as to assess whether the cameras merely displace criminal activity from one area of the city to another.

The principal results of our analysis are as follows:

- In an analysis of the change in crime occurring within 500 feet of a camera site, we find a statistically significant decline in property crime occurring within 100 feet of camera locations, but no statistically significant changes in crime 100 to 200 feet, 200 to 300 feet, 300 to 400 feet, or 400 to 500 feet from the site. The observed decline within 100 feet is

approximately 22 percent of the property crime level during the 200 day period preceding camera installation.

- In the analysis of changes in crime within 500 feet, we find no statistically significant changes in overall violent crime.
- When property crime is disaggregated into specific offenses, we see that all of the decline in property crime is being driven by a decline in larceny/theft. There are no significant patterns for burglary or motor vehicle theft.
- When violent crime is disaggregated, we find no significant declines for any of the individual crimes within 100 feet of the cameras. However, we do observe declines in homicide. When we test the significance in the decline in homicide for a larger area around the camera (within 250 feet) we find that the pre-post reduction in homicide is statistically significant. However, this reduction is completely offset by an increase in homicides of equal magnitude in the area 250 to 500 feet from the camera sites.
- When we extend the analysis to the areas that are 500 to 1,000 feet from crime camera locations, we find no significant changes in these areas for violent crime and no overall significant changes for property crime. We do see a marginally significant increase in property crime between 500 and 750 feet of camera sites, yet a more than offsetting and statistically significant decline in property crime between 750 and 1,000 feet from the sites. While crime trends in these more distant blocks are difficult to interpret, our initial impressions from site visits is that the areas 500 to 1,000 feet from the cameras are at an implausible distance from the surveillance camera locations to be impacted by the cameras (either through a deterrent or a displacement effect). For this reason, we consider trends within 500 feet of camera sites to be more telling.

The remainder of the report is structured as follows. In the following section, we discuss the theoretical avenues through which surveillance cameras may impact crime rates and the most likely avenue that would be operating within the city of San Francisco. We also discuss our empirical methodology and the important limitations regarding the interpretations of the trends we present. This is followed by a discussion of the data provided to us by the San Francisco Police Department and the manner in which we set the data up for analysis. Finally, we present our initial results along with a discussion of what remains to be done for this portion of our analysis.

It is crucial to note that this report is preliminary in its scope not only due to the limitations of the data made available to us at this time, but also because this report examines only one aspect

of the City's camera program. As we discuss in detail in the conclusion, additional data and analysis, including information about site-specific factors that could also impact the effectiveness of the cameras, is needed. Furthermore, the cameras are but one part of a larger, complex, system, and analyzing crime statistics provides only a partial explanation for the program's efficacy. As such, the UC Berkeley/CITRIS team will continue to examine the program in its entirety in detail over the next several months and produce a final report with recommendations at that time.

### **The Likely Effects of Crime Cameras and Our Non-Experimental Research Strategy**

Installing surveillance cameras may influence local crime rates through several avenues. First, to the extent that those who commit crime are sensitive to the likelihood of being apprehended, the presence of a surveillance camera may deter criminal activity in the area captured by the camera. Throughout this report, we refer to this crime effect as a local deterrent effect of increased surveillance.

Whether this local deterrent effect reduces overall crime rates depends on the extent to which those deterred from committing crime in the given area actually reduce their overall level of offending. To the extent that many of the locally deterred simply move down the street, crime will be displaced from the area covered by a camera to alternative areas of the city without video surveillance coverage. We will refer to this effect throughout this report as a crime-displacement effect.

Finally, to the extent that crime cameras aid in the apprehension and prosecution of perpetrators, crime cameras may have an incapacitation effect. Alternatively stated, if camera

surveillance is helpful in getting individuals with a high propensity to offend off the streets, this additional surveillance tool may reduce local crime rates through the incapacitation of those individuals responsible for disproportionate shares of crime.

Our understanding is that the footage from San Francisco surveillance has not been extensively used to identify suspects or as evidence in prosecution. This being the case, we interpret the results we present below as non-experimental estimates of local deterrent and displacement effects.

The empirical strategy that we pursue in this preliminary analysis is to calculate before-after changes in various crime rates in areas defined by distance to camera sites. Specifically, let  $\text{Crime}^{\text{VN}}_{\text{before}}$  be average daily criminal incidents reported to the police “very near” a crime camera site and  $\text{Crime}^{\text{VN}}_{\text{after}}$  be average daily incidents reported to the police in the same area after the camera’s installation. Here, we will define the area “very near” a crime camera as being within 100 feet a camera site. The before-after change in crime is calculated by simply taking the difference in these two averages, or

$$(1) \text{Change}^{\text{VN}} = \text{Crime}^{\text{VN}}_{\text{after}} - \text{Crime}^{\text{VN}}_{\text{before}}.$$

Suppose we were to calculate this change and we found that crime declined in the area very near the crime cameras (that is to say, the difference in equation (1) is negative). A decline in crime is consistent with several alternative interpretations. First, it could be the case that cameras indeed reduced crime. However, it may also be the case that crime may have been trending downwards in this area for other reasons. For example, if cameras were installed following, and in response to, a transitory crime wave, crime rates may have declined regardless.

To rule out this possibility, one would need to compare the pre-post changes in crime rates very near camera sites to comparable pre-post changes in crime rates in areas that are very similar to those receiving cameras but that were not placed under camera surveillance. A natural choice would be to calculate the change in crime rates in the area that is simply “near” but not too near the new crime installations, for example, within 100 to 200 feet of the camera. Suppose that this more distant area lies outside of the surveillance area of the cameras. Suppose further that this slightly more distant area is subject to the same time trends as the area in the immediate vicinity of the crime cameras. The change in crime in this “near” area is given by the equation

$$(2) \text{ Change}^N = \text{Crime}_{\text{after}}^N - \text{Crime}_{\text{before}}^N .$$

To the extent that the installation of a camera deterred crime within the area covered by the camera, the crime change in equation (1) should be more negative (or less positive) than the crime change given in equation (2). In fact, one could use the change in the area just outside the purview of the cameras as an estimate of the crime “counterfactual” for the area covered by the camera, where the counterfactual is defined as what would have happened had the cameras not been installed. Under such an assumption, the effect of the crime camera would be estimated by subtracting the change in equation (2) (what would have happened without the cameras) to the change given by equation (1) (what we actually observed in the immediate vicinity of the camera).

To be sure, such a simple comparison of changes is fraught with limitations. To start, it may be the case that the area within 100 feet of a camera and the area within 100 to 200 feet of a camera are following different time trends. For example, the former may have experienced a particularly severe crime flare-up resulting in the installation of a camera. If this were the case,

what happens in the more distant area would not provide a valid comparison path for the area newly covered by video surveillance. We can address this concern empirically to some degree by examining the time trends in crime rates just before the installation of crime cameras to assess the extent to which crime in two areas follow similar or distinct trends.

An additional complication is introduced by the possibility that crime is displaced from the area under surveillance (within 100 feet) to the area not under surveillance (100 to 200 feet). If this were the case, we would see declines in crime near the cameras coupled with increases in crime further from the camera, assuming no underlying time crime trends. When crime is trending however, we could observe declines in both regions (with a larger decline for the very near region) or increases in both regions (with smaller increases for the very near region). Thus, it is virtually impossible to distinguish a pure deterrent effect with no displacement from a deterrent effect with nearby displacement.

While it is impossible to decisively identify displacement effects in this non-experimental setting, we try to address this concern below by computing changes in crime for multiple distant areas. Specifically, in addition to computing crime changes 100 to 200 feet from a camera site, we compute crime trends for the areas 200 to 300 feet, 300 to 400 feet, and 400 to 500 feet from a camera site. To the extent that relative changes in crime in the immediate vicinity of the cameras are similar when calculated using multiple comparison groups, one might feel more confident that the local decline is not being driven by a concentrated local displacement effect.

A final limitation to the current analysis concerns more geographically dispersed or distant displacement effects. Potential offenders displaced from the corner of 16<sup>th</sup> and Mission St. can easily hop on BART, take a bus, or drive to more distant areas of the city (beyond the

1,000 foot range that we study here). To the extent that crime is displaced to more distant areas, our empirical strategy will miss it.

## **Data Description**

The San Francisco Police Department provided us with a data set describing 76,930 incidents occurring within 1,000 feet of 19 crime camera location sites. The data query involved pulling all incidents within 1,000 feet of each crime occurring between January 1, 2005 and January 28, 2008. The 19 camera sites are spread throughout the city (with locations in the Western Addition, the Mission District, the lower Haight, the Tenderloin, and Coit Tower), though there are notable geographic clusters in the Western Addition and the Mission district. Since in these clusters several of the cameras are within 1,000 feet of one another, the structure of the data query produced many incidents that were recorded more than once. Thus, of the 76,390 incidents provided to us, we tabulate that there were 59,706 independent incidents occurring within 1,000 feet of a camera site.

To analyze the data, we first restrict the file to the 59,706 unique incidents. When an incident is reported multiple times (due to the fact that it is within 1,000 feet of multiple camera locations), we keep the record for which the distance to a camera site is the shortest and discard all others. This specification choice means that the surveillance areas around camera clusters will be defined by the union of the surveillance areas of the individual cameras, and that more distant areas are only defined as such if they are not covered by a closer camera location. That is to say, a location within 50 feet of one camera site but 500 feet from another is classified as



being within 50 feet of the camera cluster. In addition, in order for a location to be classified as 500 feet from a camera site, it must be at least 500 feet from all cameras.

We then use these incident records to calculate specific daily crime rates within various distance intervals from the crime cameras for each day covered by the data set. To illustrate these tabulations, here we discuss in detail the tabulation of daily violent crimes occurring within 100 feet of each camera location. Tabulating these data involve the following steps. First, we restrict the unique incident records to those involving a homicide, forcible sexual offense, robbery, or assault. Next, we restrict the sample to incidents occurring within 100 feet of a camera site. We then tabulate for each camera site and each day between January 1, 2005 and January 28, 2008 the number of violent crimes per day. If there are no reported crimes on a given date, this variable is set to zero. The end results of putting the data through these transformations is a data series with one observation for each camera site and each day over the specified time period where the key variable is the number of violent crimes occurring within 100 feet of the camera on that day. We perform similar tabulations using alternative crime categories and alternative distance ranges for surveillance camera locations.

The installation dates vary greatly across locations, with the earliest installation occurring July 29, 2005 and the latest installation occurring May 11, 2007. To ensure that our before-after comparisons have the same number of daily crime counts before and after installation for each camera, we restrict our analysis to the 209 days preceding camera installation and the 264 days following camera installation. Crime rates exhibit clear monthly trends with crime tending to be lower during the winter months and higher during the spring and summer. In many of the tabulations below, we will adjust for these seasonal crime patterns.

## **Analysis of Crime Trends Within 500 Feet of the Camera Locations**

In this section we present estimates of crime rates before camera installation, crime rates after camera installation, and the changes in crime rates (after-before) for various sub-areas surrounding camera sites. Here we restrict our analysis to changes occurring within 500 feet. To mentally calibrate this exercise, it's helpful to have some visual idea of how far 500 feet is in terms of the urban geography of the city. From 16<sup>th</sup> and Mission, 500 feet is the approximate length between city blocks along Mission St. (e.g., between 16<sup>th</sup> and 17<sup>th</sup> street). Along 16<sup>th</sup> street, 500 feet is likely to exceed two city blocks. Based on our visits to the camera sites, we believe that 500 feet is far in excess of the area visible to the camera.

Figures 1 and 2 present average daily property and violent crimes occurring within 100 feet of the cameras and within 100 to 200 feet of the cameras. Each figure presents the average for all 19 cameras pooled for thirty day intervals relative to the camera installation date. Thus, period 1 pertains to the period 30 days following camera installation, period 2 pertains to the period 30 to 60 days post installation and so on. Note, periods -7 and 9 have slightly fewer than thirty days given the number of daily observations we have on either side of the camera installation date.

Figure 1 reveals several patterns. First, within 100 feet of a camera site property crime does appear to be lower after camera installation than before. If we compare months at similar points in the cycle (month -7 with month 6, month -6 with month 7) crime does appear to be lower after installation relative to before. In addition, crime does not spike immediately prior to the camera installation, although crime in this area is discretely higher than what is observed in the area 100

to 200 feet away. Finally, average daily property crime within 100 to 200 feet of the camera does not visibly change when cameras are installed. With regards to violent crime, there is less evidence of an average decline in the immediate vicinity of the camera.

Figure 3 presents estimates of the overall pre-post change in average crimes by 100 foot slices from the crime camera sites. These differences are based on the difference between average daily crimes occurring during the 264 days after installation and the average daily crimes occurring during the 209 days before installation. For property crime, we observe a statistically significant (at the 5 percent level of confidence) decline within 100 feet of a camera site and a series of small and statistically insignificant changes for the remaining more distant areas. For overall violent crimes, there is no discernable pattern between distance from a camera site and the change in violent crime. In each area, there are small, statistically insignificant increases in violent crime.

Table 1 presents the average daily property and violent crimes before and after camera installation for each of the areas described in Figure 3. The third column of figures presents the before-after change in average daily crimes along with the standard error of these differences. The final column presents the changes in average daily crime adjusted for seasonal trends in crime rates. These adjusted changes come from a regression of daily crime rates on a dummy variable for the post period and eleven calendar month dummy variables. These differences adjust for any seasonal imbalance between the pre and post periods. The figures in the third column are identical to those presented in Figure 3.

The results in the table indicate that the 0.01 decline in property crimes within 100 feet of the camera is equal to about 22 percent of the pre-period crime level. This result is robust to the

inclusion of month dummy variables, indicating that the before after decline is not being driven by seasonal crime trends. Again, there are no statistically significant declines or increases in property crime between 100 and 500 feet. In addition, there are no significant changes in any areas for violent crime.

*Results disaggregated by specific part 1 offenses*

Tables 2 and 3 disaggregate the results in Table 1 further to analyze trends for specific crime categories. Table 2 presents results for individual property crime while Table 3 presents results for individual violent crimes. Beginning with the results in Table 2, there are declines in average daily crime within 100 feet of the camera sites for all property crime categories. However, only the decline in larceny/theft is statistically significant. Thus, the decline in larceny/theft is driving the aggregate property crime results observed in Table 1 and Figure 3.

Table 3 documents trends for individual violent crimes. There are no statistically significant decreases within 100 feet of camera sites for any of the individual crime and the general patterns for forcible sex offenses, assault and robbery are not suggestive of a local deterrent effect. For homicide, however, we do see declines for the first three areas closest to the camera sites. To explore these homicide patterns further, we reanalyzed the data stratifying the area into two broader groups: the areas within 250 feet of the camera sites and the areas from 250 to 500 feet from the sites. Using these categories, we observe total homicide within 250 feet of the sites declining from 7 in the pre-period to 0 in the post period, while homicides in the area from 250 to 500 feet increased from 2 to 9. Expressed in terms of average daily incidents, both the decline within 250 feet as well as the increase in the area 250 to 500 feet away is statistically significant.

### **Exploring effects between 500 and 1,000 feet of the camera**

The SFPD provided us data on incidents occurring within 1,000 feet of the camera locations. From our site visits, we surmised that generally one need not go more than 100 to 150 feet from a camera site location to avoid the camera surveillance areas. Thus, we believe movements in crime rates in these more distant areas are unlikely to be related to the installation of surveillance cameras. Nonetheless, we present tabulations of the changes in crime rates beyond 500 feet to present a complete description of the data provided to us.

Figure 4 presents estimates of the changes in average daily crime incidents within 250 foot increments of the camera sites. The figure displays separate estimates for overall property crime and overall violent crime. The changes in crime rates within 250 feet and 250 to 500 feet mirror the results presented in Figure 3 (a statistically significant decline within 250 feet for property crime and no significant increases beyond, and no significant effects for violent crime).

We do observe a statistically significant increase in property crime from 500 to 750 feet. However, this increase is more than offset by a decrease in property crime rates from 750 to 1,000 feet from the camera sites. Overall, there is no significant increase in property crimes in the area 500 to 1,000 feet away. For violent crime, the changes in the distant areas are both insignificant.

### **Conclusion**

Our preliminary findings show significant pre-post camera installation declines in property crime within 100 feet of the camera sites. We find no significant increases in property

crime in the areas that one would expect to see increase should this crime decline lead to displacement to nearby street corners. Regarding overall violent crime, we see little evidence of an impact of the crime cameras. We do see a significant decline in homicide within 250 feet of the camera, but an offsetting significant increase between 250 and 500 feet. Given the severity of the offense, these homicide patterns deserve further attention and will be investigated further in the final report.

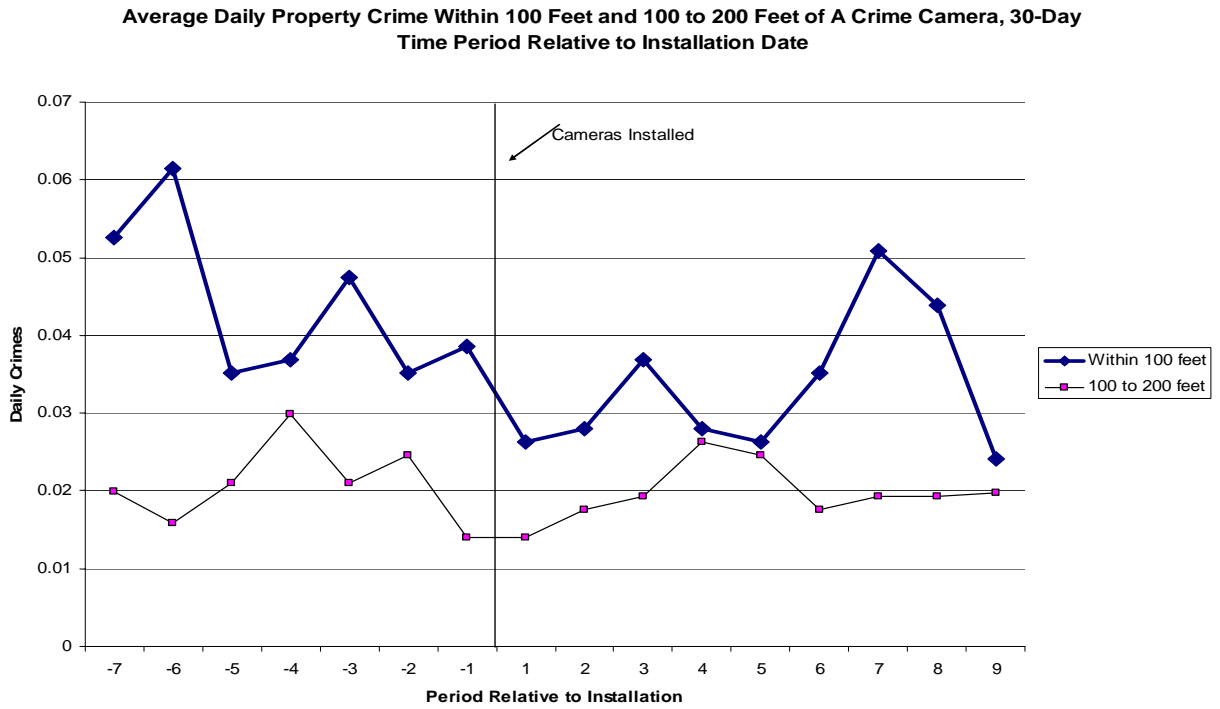
We should emphasize that the current research results are preliminary and that we intend to subject the data to more stringent assessment tests. In particular, we are hoping to ask the SFPD for data pertaining to a longer time period (a few more months for the pre-period and, to the extent possible, a few more months for the post period). The additional data would allow us to observe the change in crime over the entire annual cycle and therefore would not be subject to concerns regarding seasonality. Moreover, the additional data would permit more precise estimates of the pre-installation and post-installation averages as well as the pre-post change. In addition, more historical data about the sites themselves is required, including documentation of any changes that could have influenced crime trends at a site (such as improved lighting, changes in policing patrols, signage, or other initiatives) in order to account for the effects such changes may have had on the crime rate.

We are planning to attempt to construct comparison groups from the data we have exploiting the difference in timing in the installation of the crime cameras. For example, if the cameras at location A are installed in November of 2005 and the cameras at location B are installed in November of 2006, then crime trends at location B can be used as a comparison for crime trends at location A during the time period corresponding to the installation of cameras at location A.

We also intend to present cluster-specific estimates of the effects of the cameras on violent and property crime. Specifically, there are clear clusters of cameras in the Western Addition, the Mission, and elsewhere. The final report will include these additional estimates.

Finally, we will extend the analysis here as well as the proposed additional analysis to other incidents that do not fall into the FBI part 1 offense categories. For example, vandalism, prostitution, and drug/narcotic offenses will be analyzed.

**Figure 1**



**Figure 2**

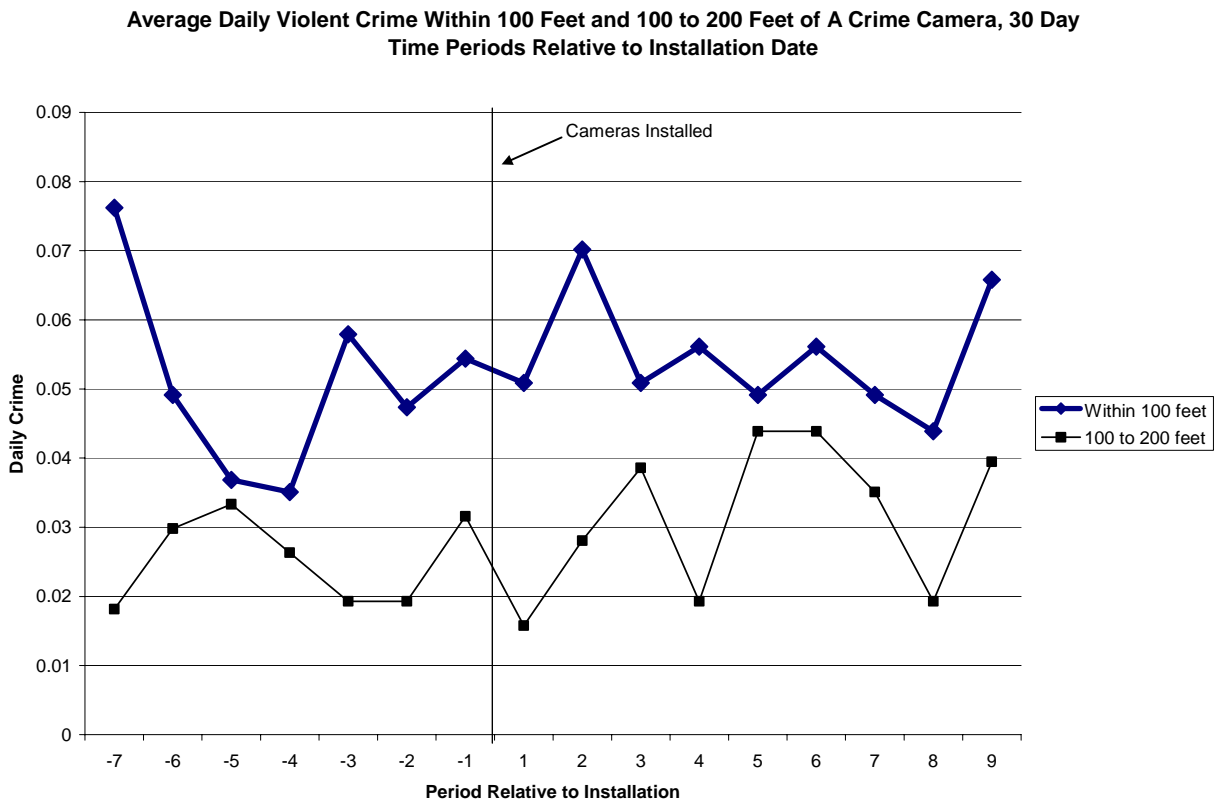




Figure 3

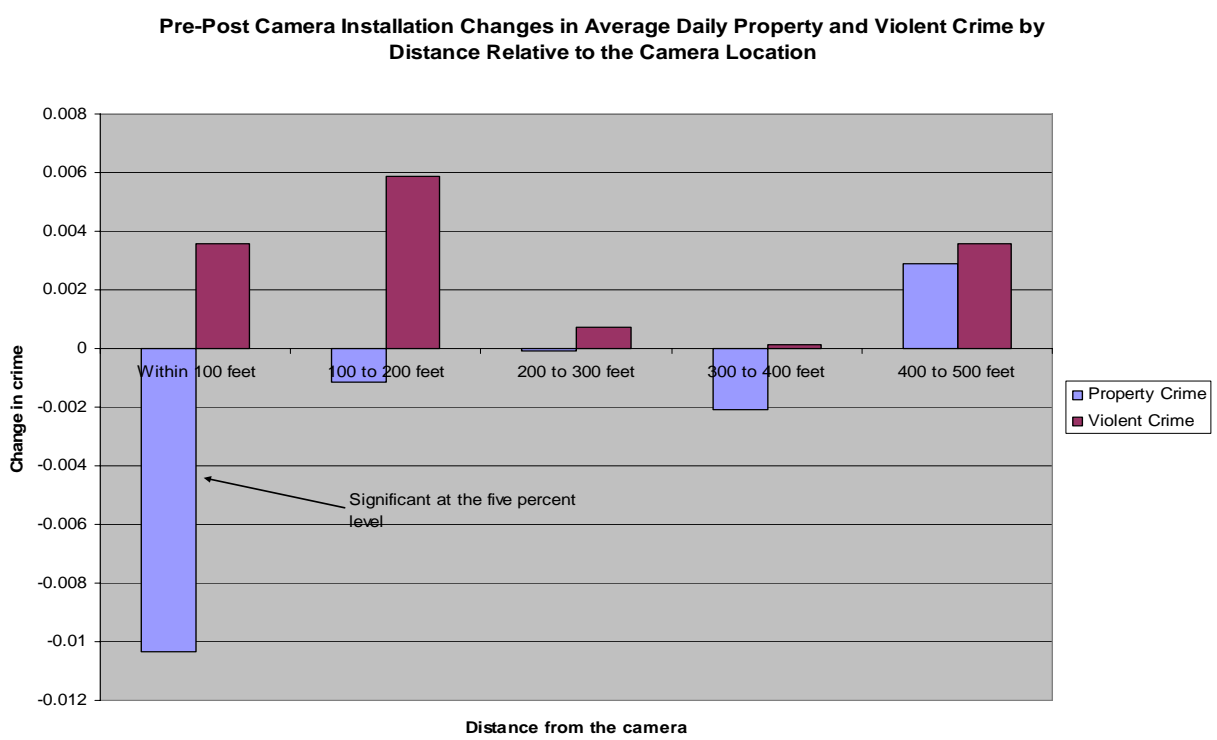
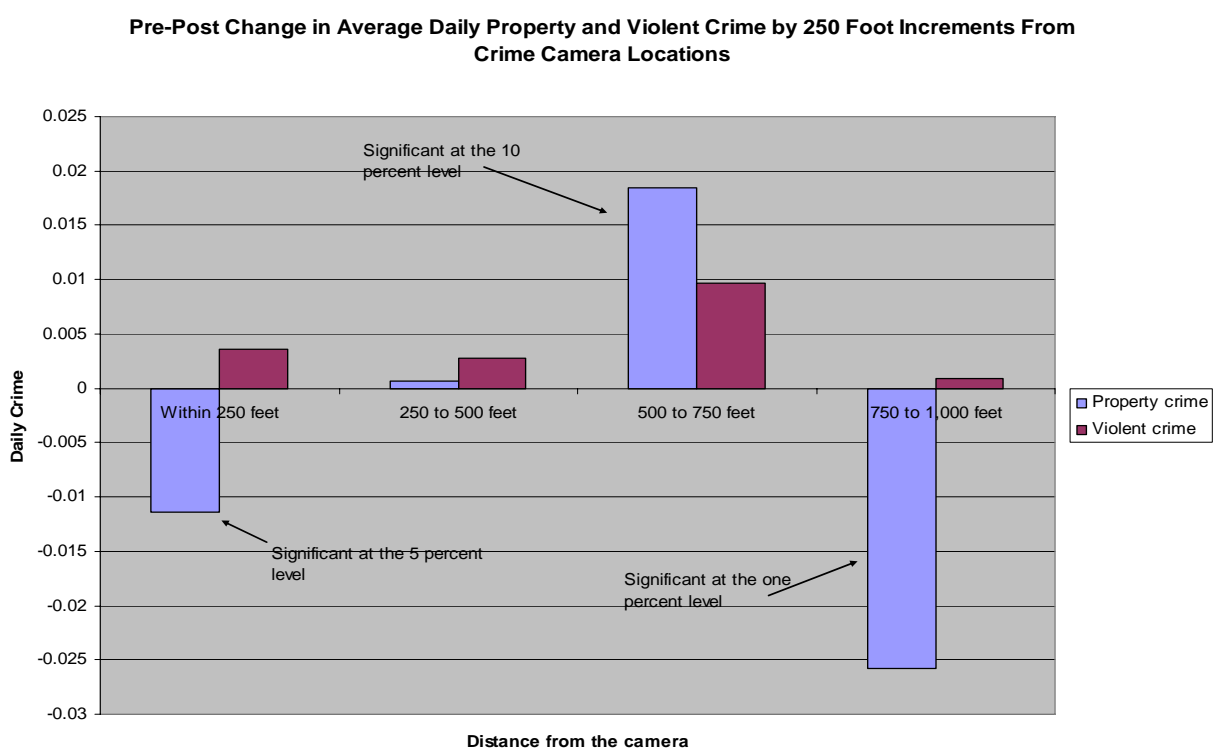


Figure 4



**Table 1**  
**Average Daily Property Crimes Before and After Camera Installation by Distance from the Camera**

Distance from the Camera	Average Daily Crime Before	Average Daily Crime After	Change, After-Before	Adjusted Change, After-Before <sup>a</sup>
<b>Panel A: Property Crime</b>				
Within 200 feet	0.044 (0.003)	0.033 (0.003)	-0.010 (0.004) <sup>c</sup>	-0.010 (0.004) <sup>c</sup>
200 to 400 feet	0.021 (0.002)	0.020 (0.002)	-0.001 (0.003)	-0.000 (0.003)
400 to 600 feet	0.020 (0.002)	0.020 (0.002)	-0.000 (0.003)	0.000 (0.003)
600 to 800 feet	0.061 (0.004)	0.058 (0.004)	-0.002 (0.005)	0.002 (0.005)
800 to 1,000 feet	0.048 (0.004)	0.051 (0.003)	0.003 (0.005)	0.004 (0.005)
<b>Panel B: Violent Crime</b>				
Within 200 feet	0.051 (0.004)	0.054 (0.003)	0.004 (0.005)	0.003 (0.005)
200 to 400 feet	0.025 (0.003)	0.031 (0.003)	0.006 (0.004)	0.007 (0.004)
400 to 600 feet	0.019 (0.002)	0.019 (0.002)	0.001 (0.003)	-0.000 (0.003)
600 to 800 feet	0.069 (0.005)	0.069 (0.004)	0.000 (0.006)	0.005 (0.006)
800 to 1,000 feet	0.049 (0.004)	0.052 (0.004)	0.004 (0.005)	0.005 (0.005)

Standard errors are in parentheses. Averages are based on 209 days before installation and 264 days after installation for each of the 19 camera locations.

- a. The figures in this column are the pre-post difference in means after adjusting for month calendar month fixed effects.
- b. Statistically significant at the one percent level of confidence.
- c. Statistically significant at the five percent level of confidence.
- d. Statistically significant at the ten percent level of confidence.

**Table 2**  
**Average Daily Property Crimes Before and After Camera Installation by Distance from the Camera for Specific Crime Types**

Distance from the Camera	Average Daily Crime Before	Average Daily Crime After	Change, After-Before	Adjusted Change, After-Before <sup>a</sup>
<b>Panel A: Burglary</b>				
Within 200 feet	0.003 (0.001)	0.003 (0.001)	0.000 (0.001)	-0.000 (0.001)
200 to 400 feet	0.006 (0.001)	0.005 (0.001)	-0.000 (0.001)	-0.001 (0.002)
400 to 600 feet	0.004 (0.001)	0.006 (0.001)	0.003 (0.002)	0.002 (0.001)
600 to 800 feet	0.010 (0.002)	0.007 (0.001)	-0.003 (0.002)	-0.003 (0.002)
800 to 1,000 feet	0.010 (0.020)	0.009 (0.001)	-0.001 (0.002)	-0.002 (0.002)
<b>Panel B: Larceny/Theft</b>				
Within 200 feet	0.031 (0.003)	0.023 (0.002)	-0.008 (0.004) <sup>c</sup>	-0.008 (0.004) <sup>c</sup>
200 to 400 feet	0.013 (0.002)	0.012 (0.002)	-0.001 (0.002)	-0.000 (0.002)
400 to 600 feet	0.011 (0.002)	0.009 (0.001)	-0.002 (0.002)	-0.001 (0.002)
600 to 800 feet	0.042 (0.003)	0.039 (0.003)	-0.003 (0.005)	0.001 (0.005)
800 to 1,000 feet	0.029 (0.003)	0.032 (0.003)	0.002 (0.004)	0.004 (0.004)
<b>Panel C: Motor Vehicle Theft</b>				
Within 200 feet	0.010 (0.002)	0.008 (0.001)	-0.002 (0.001)	-0.002 (0.002)
200 to 400 feet	0.003 (0.001)	0.003 (0.001)	0.000 (0.001)	0.001 (0.001)
400 to 600 feet	0.005 (0.001)	0.004 (0.001)	-0.001 (0.002)	-0.001 (0.001)
600 to 800 feet	0.008 (0.001)	0.013 (0.002)	0.005 (0.002) <sup>c</sup>	0.005 (0.002) <sup>c</sup>
800 to 1,000 feet	0.008 (0.001)	0.010 (0.001)	0.001 (0.002)	0.001 (0.002)

Standard errors are in parentheses. Averages are based on 209 days before installation and 264 days after installation for each of the 19 camera locations.

a. The figures in this column are the pre-post difference in means after adjusting for month calendar month fixed effects.

b. Statistically significant at the one percent level of confidence.

c. Statistically significant at the five percent level of confidence.

d. Statistically significant at the ten percent level of confidence.

**Table 3**  
**Average Daily Violent Crimes Before and After Camera Installation by Distance from the Camera for Specific Crime Types**

Distance from the Camera	Average Daily Crime Before	Average Daily Crime After	Change, After-Before	Adjusted Change, After-Before <sup>a</sup>
<b>Panel A: Assault</b>				
Within 200 feet	0.031 (0.003)	0.033 (0.003)	0.002 (0.004)	0.000 (0.004)
200 to 400 feet	0.018 (0.002)	0.024 (0.002)	0.006 (0.003) <sup>d</sup>	0.007 (0.003) <sup>d</sup>
400 to 600 feet	0.014 (0.002)	0.014 (0.001)	0.001 (0.003)	-0.001 (0.003)
600 to 800 feet	0.051 (0.004)	0.049 (0.003)	-0.001 (0.005)	0.003 (0.005)
800 to 1,000 feet	0.037 (0.003)	0.038 (0.003)	0.001 (0.004)	0.004 (0.005)
<b>Panel B: Homicide</b>				
Within 100 feet	0.0005 (0.0004)	0.0000 (0.0000)	-0.0005 (0.0003)	-0.0004 (0.0003)
100 to 200 feet	0.0008 (0.0006)	0.0000 (0.0000)	-0.0008 (0.0005)	-0.0007 (0.0005)
200 to 300 feet	0.0005 (0.0005)	0.0000 (0.0000)	-0.0005 (0.0005)	-0.0003 (0.0005)
300 to 400 feet	0.0005 (0.0004)	0.0008 (0.0004)	0.0003 (0.0005)	0.0002 (0.0005)
400 to 500 feet	0.0000 (0.0000)	0.0010 (0.0004)	0.0010 (0.0005) <sup>c</sup>	0.0011 (0.0005) <sup>c</sup>
<b>Panel C: Robbery</b>				
Within 200 feet	0.018 (0.002)	0.021 (0.002)	0.002 (0.003)	0.003 (0.003)
200 to 400 feet	0.006 (0.001)	0.007 (0.001)	0.001 (0.002)	0.001 (0.002)
400 to 600 feet	0.004 (0.001)	0.005 (0.001)	0.001 (0.001)	0.001 (0.001)
600 to 800 feet	0.017 (0.002)	0.018 (0.002)	0.001 (0.003)	0.002 (0.003)
800 to 1,000 feet	0.011 (0.002)	0.011 (0.002)	0.001 (0.002)	-0.001 (0.002)
<b>Panel D: Forcible Sex Offenses</b>				
Within 200 feet	0.0013 (0.0005)	0.0009 (0.0004)	-0.0003 (0.0007)	-0.0003 (0.0008)
200 to 400 feet	0.0005 (0.0004)	0.0006 (0.0003)	0.0001 (0.0005)	-0.0000 (0.0005)
400 to 600 feet	0.0005 (0.0003)	0.0006 (0.0003)	0.0001 (0.0005)	-0.0001 (0.0005)
600 to 800 feet	0.0012 (0.0005)	0.0012 (0.0005)	0.0002 (0.0007)	0.0004 (0.0008)
800 to 1,000 feet	0.0016 (0.0006)	0.0016 (0.0006)	0.0003 (0.0008)	0.0003 (0.0008)

Standard errors are in parentheses. Averages are based on 209 days before installation and 264 days after installation for each of the 19 camera locations.

a. The figures in this column are the pre-post difference in means after adjusting for month calendar month fixed effects.

b. Statistically significant at the one percent level of confidence.

c. Statistically significant at the five percent level of confidence.

d. Statistically significant at the ten percent level of confidence.