



Home Office

BUILDING A SAFE, JUST
AND TOLERANT SOCIETY

Assessing the impact of CCTV: the South City Case Study

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Home Office Online Report 11/05

The views expressed in this report are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy).

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1. Overview

South City secured funding through the government's crime reduction programme to install 51 cameras extending an existing sixteen-camera system. The existing system covered the main shopping precinct in the city centre and the additional cameras expanded the coverage to the main entertainment and tourist areas of the city centre.

The operational objectives of the project were to assist the police and other relevant agencies in tackling alcohol-related crime, criminal damage, public disorder and fear of crime in South City. More strategically, it was part of a package of measures to enhance the social and economical regeneration of the area, by working in conjunction with a number of police operations to make the city centre safer. The partnership had clear objectives:

- To address fear of crime and encourage use of the city centre by all areas of the community, by raising the profile of the scheme through publicity of its successes.
- To address the problems of alcohol-related crime, criminal damage, and public disorder, using strategically placed cameras to improve the surveillance of the area and supplying intelligence to the police to deploy appropriate resources to incidents.
- To provide sources of evidence to the police to detect, identify, apprehend, and prosecute offenders in relation to crime. The police, the council and other organisations can use this evidence to take criminal and civil action in the courts.
- To regenerate the city centre by identifying issues such as accumulation of litter, damaged or dangerous street signs, and traffic management and bring them to the attention of service providers, leading to their removal.

The project's objectives, as stated above, evolved through the implementation process and were derived from the original bids, notes taken at partnership meetings and the City Council's CCTV strategy document written by the Safer South City Partnership¹. The exact strategies by which these aims were to be achieved developed through the design of the scheme and through the working relationship between the police, the City Council and the control room management team (see section 3). The main mechanisms implemented to meet the objectives are listed below:

- Strategically placed cameras covered the main crime hot spots. They also provided some continuity of coverage to allow tracking of individuals.
- The City Council employed a dedicated control room manager. The management team supervised operators to ensure they met the objectives of the scheme and recorded images in line with police requirements.
- The Community Safety Partnership ensured that the system did not become a stand-alone crime prevention measure. As the project progressed, the police gradually became involved in the operation of the system. They helped to implement mechanisms to ensure that intelligence was shared between themselves and operators (see section 5).
- A digital storage system allowed multiple access points. This provided the police and the city council with easy access to images for investigatory and evidential purposes.

The major operational issue that prevented the scheme meeting its object of public reassurance was the partnerships' failure to promote the scheme through publicised successes.

¹ *CCTV Strategy*, Safer City Partnership, City council (March 2004), internal document.

2. Intelligence

General context

The target area is located in South City centre and encompasses the city's main entertainment, cultural and commercial districts, which regularly attract a large number of visitors to the area, particularly on Friday and Saturday nights. The city centre has experienced a revival in common with many other cities across the UK. Redevelopment of the old city docks brought new life and business to former derelict areas. In 2001, when the project started, the city had some of the most deprived, as well as prosperous communities in England. Five wards in South City are amongst the 10 per cent most deprived wards in England. South City lies predominantly within one ward, which is ranked 3,970 out of a total of 8,414 English wards (indices of deprivation²). The local authority housing estates and inner city wards all rank as the worst in South City³, many of these areas are adjacent to the target area. The index of deprivation ranked South City as the 69th most deprived local authority of the 354 in England.

The crime and disorder problems

The target area has the highest crime rate in South City and before the installation of the CCTV system there was a steady rise in violent crime, robbery, and disorder⁴, as shown in Table 2.1.

Table 2.1: Crime levels in South City one year before the installation of CCTV.

Crime Category	Number of offences committed in the target area between Nov.01- Oct. 01*
Burglary	552
Criminal damage	360
Drug offences	16
Public order	58
Robbery	144
Sexual offences	23
Theft	3453
Violence against the person	497

[* Represents number of crimes committed the year before cameras' installation or any visible signs of camera installation started.]

The project targeted violence against the person and the figures above indicate this was a problem in the target area. The majority of the disorder and violent incidents occurred during the weekend, particularly on Friday and Saturday nights. The consumption of alcohol and concentration of people around clubs, pubs, taxi ranks and fast food outlets were the primary causes of these problems.

The other offences specifically targeted by the project were criminal damage and public order. The figures indicate that criminal damage was a substantial problem in the area. The number of public order offences committed was relatively low, but the serious nature of these incidents has led the project to target this crime category. Theft is by far the biggest crime problem in

² With rank one being the most deprived in England.

³ Indices of deprivation analysed by Strategic and City Wide Policy, South City Council.

⁴ *South City Crime and Disorder, 2000/01*

the area, and even though a reduction in theft is not a specific objective of the project, the increased surveillance of public space may have an impact on this crime category.

Significant consequences of crime and disorder problem

The bid document highlighted fear of crime as a major issue for the scheme, and pointed to local research that had highlighted this as a problem.

Fear of crime is a key issue for this scheme. Local research, including that carried out within the Audit and city centre strategy, reveals that the area [target area] is commonly perceived in a negative way and that this results in avoidance behaviour. It was found that older people, in particular, find the city centre intimidating⁵.

Respondents to a public attitude survey⁶ clearly had higher levels of fear of crime related to the city centre at night than during the day. A quarter of people visiting the area at night felt unsafe compared to only 5.2 per cent during the day. Approximately a quarter of respondents reported worrying about being a victim of crime during the night compared to only 9 per cent during the day. Half of the respondents avoided particular areas after dark compared to 38 per cent during the day. The rates of victimisation were high with nearly half the respondents reporting being victimised in the preceding year. The survey results match the bid's proposition that fear of crime is high in the city centre, but indicate that this is only the case at night, which may be linked to alcohol related crime and disorder.

Choice of crime reduction method -- the need for CCTV

The South City Community Safety Partnership identified the city centre as a high crime area by a combination of official crime statistics, the expertise contained within the partnership, and consultation with the police. The South City Crime and Disorder Audit (2000/01) identified a need to reduce fear of crime, and the City Council launched a 'City Centre Strategy' in 1998, which aimed to achieve this as part of a broader aim to physically and economically regenerate the city centre. The CCTV project formed an integral part of this strategy alongside a number of other police led crime reduction initiatives.

The project expanded an existing CCTV scheme. A report⁷ published by the city council indicated that the existing scheme had been a 'success', based on an analysis of police recorded crime. The perceived success of this scheme was a factor in the City Council bidding to expand the existing scheme. In addition, they were one of the few city centres without a comprehensive CCTV system in England, and they felt this made them vulnerable:

We were the only city [in England] without a CCTV system [in the city centre] and this made us a target for terrorism, another reason why we got CCTV.

⁵ Crime Reduction Programme, CCTV initiative, Round Two, Final Application South City CCTV link Scheme, June 2001.

⁶ Face-to-face in-street questionnaires; pre-implementation sample of 640 and a post-implementation sample of 640.

⁷ South City Council, Safer Neighbourhoods Unit (2000): *Shopping area CCTV, impact of the scheme on crime: Initial Evaluation of scheme.*

3. Intervention

Objectives/targeting

South City Council's Neighbourhood and Housing Department managed the project through the Safer South City Partnership. Initially, the main 'output' objective was to install 44 PTZ⁸ cameras in the target area and the scheme was designed

...to provide optimum coverage, with the minimum number of cameras. Comprehensive coverage of the main entertainment and cultural area in the city centre and use of the optimum number of cameras will reduce any likely displacement effect. With few exceptions, removal of alternate cameras would produce blind spots between cameras, which would make it difficult to follow suspects. The scheme thereby will achieve standards for identification and recognition where appropriate, and will provide quality images and recording.⁹

Representatives from the Community Safety Partnership, local police representatives, and a consultant finalised camera positions through informal meetings, a tour of the target area, and the use of crime statistics. Cameras cover the majority of the bars and other crime hot spots in the area (e.g. taxi ranks and fast food outlets), and allow operators to track targets using the main thoroughways in the target area. The effective positioning of cameras facilitated the project meeting its objective of providing intelligence to the police to prevent, deter, and detect crime.

Existing CCTV intervention

The scheme expanded an existing system that had been operational for approximately five years and consisted of sixteen PTZ cameras covering the city centre's main outdoor retail area. The existing system had worked effectively by assisting a dedicated retail police team and shop security staff to tackle retail crime, and contributed to the area receiving a 'Safer Shopping Award' in June 2003. The additional camera coverage provided by the new project allowed operators to track offenders from the existing system into a number of adjacent streets. Therefore, it increased the chances of the operators being able to direct the appropriate agencies (shop security and the police) to targets. The police's experience of working in conjunction with the existing system benefited the new system, as the police already had confidence in the CCTV:

The officers have gained experience of using CCTV, due to their experiences with the [shopping area] scheme. Therefore, confidence and awareness of the capabilities of CCTV is high amongst officers.

New intervention

Design of system

- Fifty-one PTZ cameras linked to the existing system and monitored twenty-four hours a day, seven days a week. They predominately covered the main entertainment areas and

⁸ PTZ – Pan, Tilt and Zoom cameras, which allow the camera to move vertically, horizontally and zoom-in close-up.

⁹ Round two Final Application document, June 2001.

other strategically important areas identified by the police, including: the entrance to the accident and emergency department, the harbour-side tourist area, a park area, taxi ranks, late night fast-food outlets and a number of streets surrounding the existing system. The cameras covered the areas where alcohol related crime, criminal damage and public disorder were most likely to occur in the target area. Operators were able to provide intelligence to the police enabling them to detect more crime in line with the objectives of the project.

- A digital storage system provided live and recorded images, with four access points located in three police stations and the City Council's monitoring centre. These provided easy access to evidence for the police and City Council (see below), which was one of the primary objectives of the project.

Intervention principle – public reassurance

One of the main objectives of the scheme was to reduce fear of crime. This may be achieved by public awareness of the cameras' presence. The system was not highly visible, as the cameras were relatively small (33cm high) and dome shaped, and they were not easily recognisable as CCTV cameras¹⁰. The CCTV signage met the requirements of the Data Protection Act, but were A4 size, and were not immediately noticeable in the built up city centre. However, awareness of the cameras, as measured by a public attitude survey, was fairly high at 60 per cent (see section 6).

One of the objectives of the scheme, as stated in the bid, was to reduce fear of crime through publicity of the scheme and its successes. The police wanted to publicise evidential images used to convict offenders, as one senior police officer stated:

What you need is good publicity. The offence gets caught on camera, the individual gets convicted and we can publicise the use of CCTV in the case using the images. Once people see the quality of the images it will deter them...

However, during the evaluation period there was no suitable case where CCTV images were central to the conviction of an offender, partly because of the time taken to prosecute. The same senior police officer continued:

The problem is it takes ages to drag the cases through court and we can't use the images for publicity until the case has gone through the courts (Senior police officer, approximately 10 months after the system went live)

Two weeks ago a male was nicked by following him with the cameras; he had three knives on him. We keep a file of successes with violent crime convictions in terms of CCTV, but waiting for many of them to go through the court system. Once a conviction has been secured, we can use the images for publicity. (Chief inspector)

Hence, during the evaluation period there was no major publicity highlighting the successes of the scheme. This was borne out in the findings from the public attitude survey, which indicated that only 22 per cent of the city centre users were aware of any CCTV publicity at all, but no respondents recalled publicity covering the successes of CCTV in aiding the police apprehend offenders.

Intervention principle – deterrence

The project aimed to deter offenders. This objective was to be achieved through the provision of intelligence to the police, which would lead to subsequent arrests. In line with the objectives

¹⁰ See http://www.cnlu.com/index.php?section=products&product_product_id=122 for examples of the CCTV cameras installed.

of the scheme, the operators supplied intelligence to the police about alcohol-related crime. During a control room study conducted as part of this evaluation, operators were observed directing police to potential incidents quickly and the presence of officers acted as a deterrence.

Intervention principle – detection

An objective of the project was to improve detection of crime through increased surveillance of the target area and effective deployment of police. Three factors influenced how effectively the project met this objective: operator surveillance; tracking of targets, and effective deployment of appropriate agencies. These will be discussed below.

Operator surveillance

Two factors made operator surveillance particularly effective. The 51 cameras were monitored by one or two operator(s)¹¹ who were responsible for monitoring a total of eighty cameras, which was a good camera to operator ratio¹². A bank of screens displays each camera in quad mode. An additional eight full screen hot spot monitors, also on the bank of monitors, provided the opportunity for operators and other personnel working in the control room¹³ to get a quick snap-shot of all the cameras.

Second, operators were required to complete 'Viewing Schedules'¹⁴, and these supplied information to the monitoring clients about the monitoring service they were receiving. This ensured that the operators were accountable, and all the cameras were monitored on a regular basis throughout the day.

However, there was a slight monitoring bias in the control room. During the day (0900-1700), the retail radio system in the control room regularly directed operators to monitor the retail areas of the city centre, and at night the surveillance tended to switch to the entertainment areas of the city centre as they became busy. The police supplied operators with intelligence allowing them to target surveillance on crime hot spots (see section 5). Therefore, CCTV was more likely to detect alcohol-related crime by night and retail crime by day.

Tracking of targets

The CCTV system functioned as a tracking device. Its design ensured continuity between the existing and new systems. This allowed operators to track targets effectively and operators were able to pass intelligence directly to police and private security resources accordingly. However, there were limitations. The streets within South City Centre are not conducive to CCTV surveillance; many are not straight and there are a number of small side streets¹⁵. A number of obstacles blocked the cameras' line of vision, particularly in the retail and the park areas, including trees, street furniture, double-decker buses, and hanging baskets, and occasionally they impeded operators identifying and tracking offenders.

Thus, the cameras' field of view was not comprehensive, covering approximately 70 per cent of the target area¹⁶. The uncovered areas were a number of smaller streets, and these created a number of blind spots, as one operator stated:

¹¹ The monitoring station has the capacity for two operators to monitor the cameras, but for the majority of the time only one operator was employed there.

¹² See Gill *et al* (2005): *Control Room Operation: Findings from Control Room Observations*, Home Office Online Report, London: Home Office.

¹³ When control room staff not on the city centre monitoring station had a break in their duties, they would often scan the wall monitors, particularly the hot spot monitors, and a number of incidents were spotted by this form of monitoring.

¹⁴ On each CCTV monitoring station, there is a 'viewing schedule' and operators must enter the sites they monitor, and when and for how long they monitor each site.

¹⁵ See: Brown (1995: p11); Sarno, C, Hough, M. and Bulos, M. (1999).

¹⁶ Calculated by assuming that each camera has the facility to view 100m radius through a full 360 degrees, and any obstacles that obscure the cameras' line of sight are taken into account.

Occasionally, we may well have seen something [referring to an offence being committed] and a person runs down a side street and you lose them, then they don't come out where you expect. It can be very annoying, you witness something, then they are gone...The busy streets are covered, but not all streets, you could argue for a camera on every street.

However, the camera coverage encompassed all the main roads, and these were the most significant, as the operator continued:

The important streets are covered and that's what we need to track targets.

Effective deployment

The methods by which the operators pass intelligence to the police and other relevant agencies are discussed below.

Radio-net systems

During the day (0900- 1700), the operators were able to reach shop security guards, and a dedicated retail police team, through the retail radio system. The radios allowed information to be passed quickly between operators and other agencies, and facilitated a rapid response to incidents. At night, (approximately 1900 – 0300) the operators were able to contact some of the door-staff working in the target area via a pub radio system. The retail radio system was more active, and directed operators to 20 per cent of the incidents¹⁷ monitored compared to 1 per cent initiated by the pub radio system.

Telephone

Initially, operators contacted the police via 999 or a landline number that put them through to the police dispatchers at Police Headquarters. During particularly busy periods, it could take the operators up to 30 minutes to report an incident and this obviously severely delayed any response.

It's frustrating when making a call to the police, because you have to wait in a queue for non-emergency calls, and by the time you get through to the operator, the incident is over.

Sometimes up to 25 minutes, and one time it was ten minutes for a 999 call. Last night I waited at least three to four minutes for an ambulance dispatcher.

The implementation of a dedicated telephone line in the control room in December 2003 facilitated more effective lines of communication.

Police officer in the control room

A scheme was initiated in August 2003 (four months after the scheme became fully operational) that placed a police officer in the control room on a Friday and Saturday night between the hours of 20.00 and 04.00. The officer used a police radio to contact officers directly within the target area. This facilitated a quick police response to incidents identified by operators. This increased the chances of officers detecting, preventing, and dealing with offences committed in the target area effectively, in line with the objectives of the project.

¹⁷ An incident is defined as a target monitored for one minute or more, and was taken from: Norris, C. and Armstrong, G. (1998): CCTV and the Social Structuring of Surveillance. In C. Norris, J. Moran and G. Armstrong (eds): *Surveillance, Closed Circuit Television, and Social Control*, Aldershot: Ashgate

Intervention principle – provide evidence to the police

Police accessing CCTV evidence

The project allowed police access to stored digital images. In line with the objectives of the project, police used the images as evidence to investigate offences committed in the target area. The images were recorded at twelve and a half frames per second on the spot monitors providing very good quality images, but the wall monitors were recorded at two frames per second providing adequate, but not exceptional quality images. In practice, the police only made significant use of one access point. Approximately 570 incidents were viewed on the system¹⁸ and approximately 120¹⁹ downloads were taken. The main crime categories that were downloaded by the police are shown in Table 3.1 below:

Table 3.1: The main offence types downloaded by the police images

Crime category	Number of incidents viewed	Number of recordings taken	Percentage of viewings where recording taken.
Assault	149	23	15.4%
Robbery	141	18	12.8%
Public order	27	14	51.9%
Serious weapons offences	30	12	40.0%
Murder	17	10	58.8%

The Council received 61 requests from the police to view the digital system and download any data relevant to specific offences. The cameras caught fifteen of the incidents, and the city Council provided this evidence to the police. The police did not provide feedback to the control room as to what use they made of the images. Police records were not available to evaluate the use police made of CCTV images as evidence. Once the police had remote access to the images, the Council refused to deal with viewing requests from them, and operators relieved of these duties were able to spend more time proactively monitoring.

Police use of recorded CCTV evidence

The design of the scheme provided the opportunity for police, the Council, and other authorised organisations to obtain evidence relating to criminal and civil action in court. In practice, the police only made significant use of one access point and used the recorded data mainly for investigation purposes. The police confronted offenders with the images, and this led a number of offenders to change their pleas to guilty:

To my knowledge it has not been used in a court case [referring to CCTV recorded images], but it has been used a number of times to make offenders aware of the evidence we have against them. This has changed their pleas to guilty on a number of occasions. (Senior police officer).

The police's use of the images in court has been minimal and the chief inspector of the city centre district could only recall one case in the Crown Court where digital images were used during the evaluation period. The use of images in court was initially restricted because the courts did not have the technical equipment to show digital images on compact disc. This was resolved when the City Council supplied the police with a laptop.

¹⁸ The police had use of the system for approximately ten months, during the evaluation period, between July 2003 and March 2004. The system experienced technical problems, with faulty hard drives not always recording. On a number of occasions, this resulted in the police not being able to access the images they required.

¹⁹ The data source for the number of incidents viewed and downloads taken were police records completed by individual officers. The system allowed officers to access cameras from the target area and three other systems. Officers did not always record the location of the incident they were viewing, therefore the numbers provided in the text may underestimate the number of downloads taken from the target area.

4. Implementation

Project development

South City Community Safety Partnership²⁰ identified and secured the capital funding from the Home Office, and three members of this group formed the project team, which managed the implementation process. This was a single agency-led partnership consisting of the City Council's Community Safety Co-managers and the Crime and Disorder Co-ordinator.

The three managers had very different skills and experience, which all benefited the project. One of the Community Safety Managers was also the CCTV control room manager and had good knowledge of the technical aspects of CCTV systems. He was able to effectively co-ordinate with a consultant (see below) and redesigned the control room to facilitate the new scheme (see section 3). Another member of the team was a member of the Community Safety Partnership, and through her position in the Council, secured the relevant revenue funding for the project from the council and through contributions from local businesses. The third member of the project team was a Crime and Disorder Co-ordinator and a police inspector, who proved to be a valuable link between the project team and the local police.

The project team employed two consultants at separate points during the implementation process. One consultant helped design the system and advised on camera positioning. One of the managers had a good level of expertise in terms of CCTV systems and effectively used the second consultant's expertise to investigate and advise on specific aspects of the implementation process. For example, he used the consultant to identify appropriate monitoring equipment for the control room and to assess digital storage systems. The project team had substantial workloads and CCTV was only part of their responsibilities. Without the use of consultants, it is unlikely that the project would have been completed on time.

The Council representatives organised regular meetings with other stakeholders including the police and representatives from local businesses. The meetings ensured other agencies got involved in the scheme and were the main catalyst for the increasing police involvement in the scheme (see section 5).

Operational management

A steering group took over the running of the project once the scheme was operational and was responsible for the 'future set up and running of the CCTV city centre scheme to fully utilise the service'.²¹ The group provided a forum for the police and City Council representatives to meet and share information about the project and contribute to the effective running and development of the scheme. Partners exchanged intelligence about crime and disorder issues within the target area, which the control room management filtered back to the operators. The project facilitated a closer working relationship between the Safer South City Partnership (including the control room management) and the police. A senior police officer stated:

What has happened is the partnership has allowed more contact between ourselves [the police] and Safer South City Partnership. We see them more and they listen to us more.

The project extended the control room monitoring responsibilities, and for the first time the City Council employed a dedicated control room manager (post commenced June 2003). The manager moved his office into the control room, and the management team²² changed to

²⁰ Also known as 'Safer South City'

²¹ Taken from minutes of 'CCTV Steering Group' meeting (01.08.04).

²² The management team consisted of a CCTV control room manager and two assistant managers.

working shift hours. This resulted in more interaction between the management team and the staff, and facilitated the development of an effective informal means of information sharing between the two parties. The control room manager was proactive in enforcing the principles and protocols contained in the control room's code of practice. This produced a standardised style of monitoring in the control room and had a positive effect on the operators' monitoring procedures, as they attained evidence to Police Scientific Development Branch specifications. The control room manager was also able to use his previous experience of working in the police force to inform the operators how to record incidents in line with the police requirements for evidential purposes. This helped ensure that offences captured by operators were useful to the police in the investigation of offences and as evidence, in line with the objectives of the project.

5. Involvement

The main organisations involved in the project were the City Council, through the South City Community Safety Department and the police. Three members of the City Council aided by a consultant and police intelligence implemented the project. The project team were aware that police support for the scheme was vital if the scheme was to be effective. They ensured that the police became increasingly involved in the project through the implementation phase and into the operational stage of the project. A member of the project team stated:

As the implementation process has progressed, different agencies and parties have come on board. Once the scheme had secured Home Office funding, and things started moving, the police became more interested in the scheme. The planning stage still saw very little interest from groups outside the local council...If the police were more involved and had a financial stake they would have been more willing to put other resources in to making sure it works. They have been very slow to support CCTV as they did not want to contribute financially to the scheme.

Main organisations involved in the project after it became operational.

The police

The police, in line with the project's objectives, viewed the system as a tool to assist them in deploying resources to offences committed within the target area, particularly alcohol-related violence. The police believed that the system would not act as an effective deterrent against alcohol-related violence. A senior police officer stated:

The capacity of the city centre is about 55,000 people on a Friday and Saturday night, who will still come no matter whether footage is being taken and still commit offences.

The police had limited resources to deal with the large numbers of people that use the city centre night-time economy, and they envisaged the CCTV scheme aiding them in this respect. During the implementation of the project, the partnership between the police and City Council developed mechanisms by which CCTV would help the police.

- The police held 'tasking meetings' to produce priority policing areas within the city centre, and a member of the control room staff attended these meetings. Control room operators were informed of the priority areas via a tasking sheet, which all members of staff could easily access. This was a proactive method of keeping the lines of communication open between the control room and the police, and effectively targeted operators' surveillance.
- Another scheme piloted in the control room and subsequently implemented as a permanent feature was having a police officer in the control room, employed on the city centre station on Friday and Saturday nights between 20.00 and 08.00. The officer acted as an additional operator, but also a means of communication between the control room and officers in the target area. The police officers' presence was important because they assisted in the monitoring of the city centre by using their experience to guide operators' surveillance to hot spot areas and recognised known offenders in the target area.
- The project integrated with existing and new police initiatives operating in the target area, to tackle problem categories of crime and disorder, specifically robbery, alcohol related violence, and aggressive begging. Police officers gained intelligence through access to stored digital images, and specialised police teams used this information to target problem crime categories. Operators contacted specialised police teams to pass on intelligence and/or inform police where relevant information was stored on the digital system.

During the implementation of the project, the project team campaigned for a police radio to be installed in the control room. This was eventually installed, but due to the location of the control room, the signal was poor and the radios were ineffective. The police officers employed in the control room were able to use the radios by moving around the control room and finding better reception points. One of the main benefits of the project was the improved working relationship between the police and control room, which evolved through police involvement in the implementation process and the steering group that inputs into the operation of the project (see above). The control room assistant manager stated:

One of the main benefits of the new city centre cameras is the partnership that has developed between the police and the control room. We have them in here (referring to the control room) on a Friday and Saturday night and we see more of them through partnership meetings. They understand us better and we get to interact with them more.

Retail security

The retail radio system produced regular exchanges of information between the operators and retail security staff. The extension to the existing CCTV system enhanced the operators' ability to track offenders and provide the police and retail security with intelligence. A representative from the control room attended regular meetings with the retail radio users, and a folder containing mug shots of known offenders was updated and regularly sent to all the users. These measures meant that good practice and intelligence were shared between the users of the system.

An additional retail radio system was implemented in January 2004 to cover a retail area within the target area, which allowed operators to pass information about shoplifters to nineteen new retail outlets. The system was implemented to combat displacement of retail from the main CCTV covered retail areas of the city centre, and allowed the operators to pass on information to retail security staff concerning the movement of known offenders.

Licensee door-staff

Before the system was implemented, a pub radio system had been established and the control room was linked into the system, allowing the operators to pass and receive information from the door-staff and any police officers carrying a radio. Initially, the working relationship between the operators and door-staff was poor, but it became increasingly more effective as the project progressed and a level of trust developed between the two parties. The control room manager stated:

It was quite quiet (referring to pub-net radio system) in the embryonic stage. It has become more useful and provided us with more information as the working relationship has got better and some of the door-staff have come to view us as useful.

The city centre manager

There was a lack of engagement by the city centre manager, and this inhibited the use of the scheme as a city centre management tool to assist in the regeneration of the area, one of the objectives of the project (see above). The project team tried to initiate contact with the manager by inviting him to partnership meetings during the implementation and operational stage of the project, but he failed to attend. A member of the project team stated:

Personalities like [name of chief inspector] have been supportive of the scheme and the partnership approach. We spent a lot of time trying to get other groups involved and have failed; we have to take some responsibility for that. Those that have got involved have really contributed to the scheme...it is seen as police scheme and we need to open up eyes to what else it can be used for.

Utilising the scheme as a management tool may have led to a cleaner city centre, and this may have reduced fear of crime and attracted more visitors to the area.

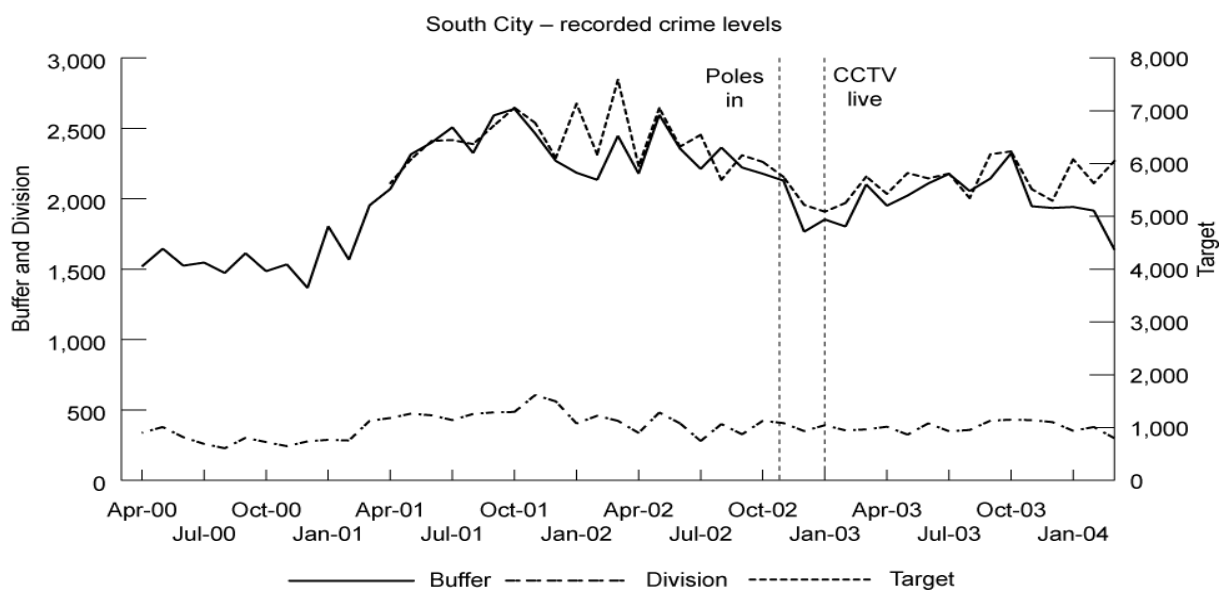
6. Impact

This section will review the main objectives of the project and assess to what extent they have been met, using police-recorded crime statistics and a survey of public attitudes. It will outline other crime prevention measures that were operating in the target area during the evaluation period. Where appropriate, these measures will be linked to changes in recorded crime rates and fear of crime. The presence of confounding variables means that any changes in the levels of fear of crime and recorded crime may not be attributed solely to the presence of CCTV.

Crime statistics

Police-recorded crime statistics were collected for the period two years preceding the installation of the cameras to fourteen months post-implementation. Analysis of the crime levels was conducted within the target area, the police division and a buffer zone, which covered a one-mile radius from the target area. Figure 6.1 shows a time-series analysis of crime levels in the target, division and buffer areas, indicating fluctuations in crime pre- and post-CCTV installation.

Figure 6.1: South City - Recorded crime trends in the target, buffer and division.



The Figure reveals that both the target and division showed similar crime trends: a steady decrease in crime following implementation, stabilising at a lower level in the period after the cameras went live. This suggests that any change in crime is due more to general trends than to any specific impact of the cameras.

Analysis of the crime levels one year before installation (November 2001 – October 2002) to one year after installation (February 2003 – January 2003) revealed that crime reduced by 10% in the target area. Table 6.1 details the reduction in overall crime in comparison to the division.

Table 6.1: South City – Changes in overall crime in the target and divisional area one year after CCTV installation

	Absolute target change	Target change (%)	Absolute division change	Division change (%)	Is this significant	Relative effect size	Confidence limits
Overall crime	5106 - 4584	-10	77530 - 68432	-12	No	0.98	1.13-0.83

Table 6.2 reveals the number of specific offences before and after the installation of CCTV, in both the target and divisional area:

Table 6.2: South City – Changes in specific crimes one year after CCTV installation

	Target Area			Division			Is this significant ?	Relative effect size	Confidence intervals
	No. crimes before CCTV	No. crimes after CCTV	Change in crime	No. crimes before CCTV	No. crimes after CCTV	Change in crime			
Burglary	552	439	-21%	15,738	11669	-26%	No	0.93	1.18-0.69
Criminal damage	360	288	-20%	10,343	11036	+7%	Yes	1.33	1.43-1.25
Drugs offences	16	34	+113%	700	964	+38%	No	0.65	1.12 – 0.18
Public order	58	95	+64%	163	200	+23%	No	0.75	1.10-0.4
Shoplifting	119	148	+24%	3,431	3,561	+4%	No	0.83	1.23-0.44
Theft	3,453	2903	-16%	38,609	30,869	-20%	No	0.95	1.13-0.77
Violence against the person	497	660	+33%	7,620	10,512	+38%	No	1.04	1.28-0.79
Vehicle crime	1,641	972	-41%	17,825	12,912	-28%	No	1.22	1.64-0.84

The table reveals the following information:

- Public order offences increased by 64 per cent compared to a rise of 23 per cent in the division. CCTV may have led to more reporting of crime via the control room operators to the police.
- Shoplifting offences increased by 24 per cent compared to a rise of 4 per cent in the division. The CCTV system has enhanced the operators' ability to track shoplifters and direct relevant agencies to targets, which may account for a proportion of the rise in the target area.
- Criminal damage showed a 20 per cent reduction in the target area compared to a 7 per cent increase in the division (statistically significant $p < .05$), suggesting the cameras acted as a deterrent.

Although large changes were identified across a number of other crime categories, it is noticeable that similar changes were also experienced across the division as a whole, suggesting that the change was due to general trends. It is also apparent that other crime reduction measures could have accounted for the changes.

- Changes in crime rates for burglary, theft and violence against the person were consistent with changes in the divisional data.

- Vehicle offences decreased in the target area at a higher rate than across the division. The reduction in vehicle crime mainly occurred in car parks that were not covered by the cameras and can be attributed to partnership work between the police and other agencies.
- The increase in the rate of drug offences was higher in the target area than the division. A number of police initiatives targeted drug offences over the evaluation period and may account for the rise in detection rates.

Public Attitude Survey

One of the main objectives of the project was to address fear of crime in the target area. A pre- and post-CCTV public attitude survey aimed to determine fear of crime levels using two measures: feelings of safety and worry about being a victim of crime. Both indicated a reduction in the level of fear of crime following the installation of CCTV.

- Post-implementation, fewer respondents were worried about being a victim of crime during the day, with the number of respondents reporting being worried dropping by six per cent (significant at $p < .05$). The change was more substantial for worry about being a victim of crime after dark, with the number of respondents reporting being worried dropping by eight per cent (significant at $p < .05$).
- The respondents interviewed during the day indicated that they felt safer in the city centre post-implementation of CCTV, with the number of respondents reporting feeling safe or very safe increasing by four per cent (significant at $p < .05$). At night the number of respondents reporting that they felt safe or very safe increased by 15 per cent (significant at $p < .05$).
- The proportion of people who said they avoid places in the city centre also fell by nine percentage points and the proportion of people reporting being unsafe when moving around the area fell by six percentage points.

Reported victimisation rates reduced by 15 per cent (significant at $p < .05$), and there was a significant ($p < .05$) reduction across a number of incident/offence categories, primarily made up of incidents of harassment. There was a non-significant reduction in reported victimisation of assault (5.3% to 4.5%), which was an offence specifically targeted by the police using CCTV.

These are positive results, but CCTV was at best a contributory factor. As evidence, only 20 per cent of the respondents considered that 'with CCTV, the level of crime has generally got lower' and just 17 per cent agreed that CCTV was making a difference in the places visited within the city centre.

In all, 65 per cent of the survey respondents knew about the cameras and they were as worried of being victims of crime as those who were unaware of the system. A more plausible explanation for the reduction in fear of crime may be that the police actively tackled aggressive begging in the city centre. Other factors such as city centre wardens, police operations to tackle drug offences and street robbery may have influenced the reduction in fear of crime.

Was CCTV effective?

The findings from the police recorded crime figures and the public attitude survey enabled an assessment of three of the objectives: to address fear of crime, to provide intelligence to the police to detect, deter, and prevent crime; and to address the problems of alcohol-related crime, criminal damage, and public disorder. These will be discussed below. The report has previously discussed the projects' failure to aid the regeneration of the area (see section 5) and the lack of CCTV evidence that was used in criminal proceedings (see section 3).

Provide intelligence to the police to detect, deter, and prevent crime

The only quantitative means of measuring detection was the analysis of control room logged incidents. Over a 48-hour monitoring period 57 incidents were monitored and 27 of these could be classified as crimes. Operators passed intelligence to the police on fourteen separate occasions. Ten of these incidents occurred on the Friday evening/night shift whilst a police officer was in the control room. The officer was able to elicit quick response to incidents allowing the police to defuse potentially violent situations, attend a road traffic accident, and attend to an assault victim. In a number of cases, the officers were able to prevent offences being committed by defusing potentially violent situations.

Address the problems of alcohol-related crime, criminal damage, and public disorder

The recorded crime figures for alcohol related offences, violence against the person (VAP) and public order increased in the first year the cameras were operational with VAP in line with the divisional figures. As previously discussed, research has indicated that the presence of CCTV cameras does not deter alcohol-related offenders. However, the figures show that public order offences increased at a higher rate than the divisional data and this may be due to increased reporting by CCTV operators. The operators worked in conjunction with police officers on Operation Absolute, which started in July 2002, nine months before the project became operational, and it increased the number of officers in the target area on a Friday and Saturday night (20.00 – 04.00). Another initiative placed a police officer in the CCTV control room (see section 3), allowing a quick police response to incidents of public disorder. CCTV could have contributed to the increased reporting of public order offences.

Criminal damage fell by 20 per cent over the first year CCTV was operational compared to a rise across the divisional area. This suggests that CCTV may have acted as a deterrent.

Address fear of crime

Only 19.5 per cent of the sample believed that 'with CCTV in South City crime has got lower'. This suggests that the reduction in fear of crime is not entirely caused by the implementation of CCTV. Sixty per cent of the respondents were aware of the cameras. However, those who were aware of the cameras were more likely to be worried about becoming a victim of crime than those who were unaware of the cameras. This suggests that the presence of cameras did not act as a mechanism to reduce fear of crime. Only 17 per cent agreed that CCTV was making a difference in the places they visited within the city centre, indicating that the scheme did not have a major influence on avoidance behaviour.

7. Conclusion

The project was never seen as a 'stand-alone' initiative by the project team. It developed into a 'tool' that worked in conjunction with a number of other police initiatives. The target area is a high priority for the police due to the high crime rate, and the CCTV has assisted a number of police run initiatives in the area. Given the number of crime and disorder initiatives operating in the target area during the evaluation period it was not possible to link the changes in official crime figures and in the public attitude survey solely to the success or failure of the CCTV project.

- The project had a number of positive effects
- The project operated in conjunction with the police, which increased the detection of public order offences in the city centre.
- The system expanded an existing retail radio based scheme and this enhanced the operators' ability to pass information to relevant agencies concerning retail related offences. The figures indicate that the project may have increased reporting of shoplifting.
- The cameras may have deterred criminal damage.
- The project provided the police with evidence to investigate offences committed in the target area.
- The project was a catalyst for the improved working relationships between the police and City Council through the forum of the CCTV steering group.

The objectives of the project were met to varying degrees.

- In terms of alcohol related crime, the project increased reporting of public order offences and deterred criminal damage. However, the project did not affect the levels of violence against the person.
- Fear of crime reduced in the target area after the installation of CCTV. However, the presence of cameras did not reassure the public and the project failed to publicise the successes of the scheme. Other factors may have played a part in reducing fear of crime, including a specialised team that tackled aggressive begging in the city centre, aided by CCTV evidence.
- The project supplied evidence for the police to detect, identify, and apprehend offenders. However, it is beyond the scope of this research to ascertain how useful the evidence was for the criminal justice investigation process.
- The use of CCTV evidence was restricted by the lack of technical equipment to show the images in court. The police indicated that a number of offenders changed their pleas to guilty after being confronted with the images.
- The project failed to assist in the regeneration of the target area by alerting service providers to litter problems and damaged public property. The city centre manager did not input into the project and this stopped the project meeting its regeneration objective.

Produced by the Research Development and Statistics Directorate, Home Office

This document is available only in Adobe Portable Document Format (**PDF**) through the RDS website

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ISBN 1 84473 565 6

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