Evaluation of CCTV in the London Borough of Lewisham

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PRCI

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Martin has been associated with PRCI since its inception in August 2002, and with the University of Leicester since 1992. Previously he served 12 years with the Post Office Investigation Department, where he investigated offences such as robbery, mail theft and fraud committed both by Post Office staff and the public.

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Executive Summary

- This paper reports on an evaluation of the town centre CCTV scheme in the London Borough of Lewisham. The study was conducted in 2003 and 2004, and looked at the scheme's operation in the years 1996 to 2004.
- The evaluation was conducted by a mixture of process evaluation (examination of the implementation and management of the scheme) and impact evaluation (measurement of any effect attributable to the scheme).
- Within each type of evaluation a number of methods were used. The process evaluation drew on depth interviews with stakeholders, examination of control room incident data and a commissioned evaluation of control room management, staff and procedures. The impact evaluation drew on the control room incident data and observation within the control room, an attitudes survey of Borough police officers and an analysis of crime trends based on data provided by the Borough.
- An important finding from the interviews and the observation was the value of good communication from and to the control room. By the end of the evaluation study the control room had acquired a police radio enabling two-way communication between police officers and CCTV operators. The research team witnessed frustration on the part of the operators without this communication at the beginning of the study, heightened expectation with the arrival of a radio allowing operators to listen to police-to-police communication, and eventual fulfilment when two-way radio was installed.
- Police officers in the attitudes survey confirmed that communication was one of the biggest factors determining whether CCTV could succeed.
- Some stakeholders were concerned that the successes attributable to CCTV were not publicised enough and that such publicity would enhance its effectiveness. A similar finding came from the police survey: officers who had experienced the benefit of CCTV images being used in interviews with suspects and in trials of offenders were inclined to rate the value of the cameras higher than their colleagues who had not. This matches the difference in views between offenders with experience of being caught by CCTV, who rate it effective, and those who have not, who are less inclined to consider CCTV a deterrent.
- Few of the stakeholders claimed that CCTV had reduced crime and disorder, and while most claimed that it reduced fear of crime there was doubt whether any reassurance translated into increased use of town centres or increased business activity. Stakeholders were not able to name many mechanisms by which CCTV could impact on crime and disorder. By contrast many of the police officers surveyed had witnessed the processes by which the cameras impacted on crime by deterrence, detection, gathering of evidence and directing officers to incidents.
- The ability of CCTV to direct the police to incidents was revealed by the analysis of incident and occurrence logs and by observation in the CCTV control room. It was also supported by the police survey respondents, a majority of whom had been directed to incidents by CCTV operators and who were generally impressed with the CCTV operators' ability to interpret what the images were telling them. The incident and occurrence analysis showed that an impressive proportion of reports originating in the CCTV control room resulted in a police response, and that for some types of incident arrests were frequently made as a result of police attendance.

- CCTV is better at spotting certain types of offences (such as disorder) and not so good at detecting others (such as shoplifting) which attract less attention. However in the case of the latter the operators have shown their value in locating incidents after they have been made aware of them. Once this is done, the cameras can record evidence, track fleeing suspects and witness arrests. The retail radio link in the Borough is a valuable aid to directing the CCTV cameras to incidents of theft
- The CCTV control room is considered by the CCTV User Group which evaluated its management operation and procedures to be among the best it had seen. Problems were arising at the time of the evaluation from a lack of management continuity, but this issue is now resolved.
- Crime trend analysis for the period between 1996 and 2001 gives mixed results. For all offences likely to have been deterred by CCTV, the cameras appear to have had a measurable reducing effect in Catford but no such effect in Lewisham and Deptford. Where the cameras do appear to have been effective at reducing crime in their immediate location, no displacement to the wider district could be detected.

Contents

Introduction

The purpose of this study is to evaluate the effectiveness of the Lewisham Borough CCTV scheme at combating crime and disorder and allaying the fear of crime in the major shopping centres and major highways of the Borough. It is possible to identify several aims of CCTV. These include the belief that it will deter some people from committing crime and nuisance offences, and will provide images that can be used to help identify offenders and assist prosecutions, and that the very presence of CCTV cameras may help to reduce the fear of crime by making people feel safer. If these aims are realised they will lead to further benefits, including fewer victimisations, increased use of public space, more business activity and greater business confidence, increased prosperity and feelings of well-being and greater co-operation between agencies.

The methods used to conduct the evaluation are a process evaluation to measure how the scheme was implemented and is managed, and an impact evaluation to measure the effect it has had.

Section One of this report begins the process evaluation to determine the effectiveness of implementation plans by identifying what happened and why, with the aim of generating important transferable lessons. The main element of the process evaluation was an enquiry of stakeholders about their expectations of the scheme and what would signal to them that these had been met. From expectations of the scheme specific aims can be distilled and these can be used to measure whether the scheme has been successful. Additionally, many of the stakeholders interviewed were involved in the planning and implementation of the scheme and could therefore give historical information on the processes by which the scheme and its management structure came about.

Section Two reports on the analysis of incident and occurrence logs maintained at the CCTV control room at New Cross between 1 June 2001 and 31 June 2002, and at the new Catford control room between 1 July 2002 and 12 August 2003. The purpose of this analysis was to begin to assess what types of incidents came to the notice of the control room operators, what they did in response to them, how they interacted with the police and other agencies of crime prevention and detection, and what results were achieved. A short observation exercise was conducted in the Catford control room in December 2003, and the results of that are also reported in this section. The incident and occurrence analysis was planned as a furtherance of the process evaluation, but the exercise also revealed valuable data on the impact of CCTV operators on the work of the police and other crime preventive and detective agents.

Section Three is an assessment of the control room conducted by the CCTV User Group in 2003. The assessment covers the management and operation of the control room, concentrating on the adequacy of the equipment, the method of operation of the system and the procedures adopted, and how these factors might affect the overall effectiveness of the system. This exercise measured the quality of the systems that had been put in place to manage the CCTV system, and particularly the control room. It is therefore part of the process evaluation.

Section Four reports on a survey of the attitudes of Lewisham Borough police to the CCTV scheme. Officers describe their general attitudes to the concept of CCTV, the extent of their interaction with the Lewisham scheme and their views on its strengths, weaknesses and ability to deliver broad and specific objectives. An assessment is made in this section of the degree to which officers' perceptions are coloured by the extent of their involvement and interaction with the scheme. The police attitudes survey is a measure of impact, since influencing police officers to form favourable views of CCTV's ability to help them do their jobs is a pre-requisite of the scheme's having an impact on detection and processing of offenders.

Section Five comprises an analysis of crime trends in the Borough between 1996 and 2001, compiled using incident data supplied by the police and processed within the Borough to separate the incidents that occurred within the effective range of the CCTV cameras from those outside it. The trends are analysed to assess the effect of the cameras' installation on the incidence of different types of offences in the various town centres, and as such is firmly part of the impact evaluation.

The final section draws together the findings and makes an assessment of the success of the scheme and what factors have contributed to and hampered that success. It also draws out the features of the scheme that need attention, and the lessons that can be learned for the benefit of other CCTV projects.

Section One: Interviews with CCTV's Stakeholders, Borough Staff and Managers

1.1 Introduction

A total of 25 in-depth interviews were conducted with stakeholders, staff and managers of the Lewisham Borough CCTV scheme, all of whom were assured of anonymity.

Those interviewed included:

- four senior Borough Council executives
- one manager and two members of the Community Safety Team
- three managers in retail security
- one manager and one member of the Youth Offending and Drugs Action teams
- three senior police officers
- three co-ordinators of street crime prevention
- three CCTV managers and three operatives

The main aim of the interviews was to examine the quality of the relationships between the various crime reduction partners and agencies in Lewisham and the effect of those relationships on the efficacy of CCTV. In the event, the width and depth of the experience of those interviewed enabled discussion of matters relating to all six research objectives, and this discussion is therefore structured around them.

1.2 The efficiency and effectiveness of processes used in the current CCTV provision

The Lewisham CCTV system installation project is managed by the contractor, T E Beach, with this principal contractor responsible for the groundwork and installation of the poles. T E Beach has subcontracted works under the main contract to four subcontractors: ComfortZone (responsible for commissioning and installing the cameras and technology), Ogier (responsible for laying the fibre optic cabling), ICS (responsible for the installation of microwave communications) and Plettac (who supply the electronic equipment).

Despite the complexity of these arrangements, which have occasioned some delay to the implementation of the Phase 4 expansion of the scheme, it was apparent from observation of the CCTV control room that the system was operational and that the vast majority of the cameras were sending and recording images.

At the time of our latest observation of the control room 83 CCTV cameras were active, and Phase 4 implementation was due to be completed some between August and the end of September 2003.

The contract to supply CCTV operators is held by Legion Security. Operators were observed to come from diverse sections of the community, with the result that on most shifts the three

operators on duty are likely to be of different genders and ethnic groups. This is comforting to the Borough politically, but it may also have a more practical advantage in that there is potentially a range of perceptions of what constitutes a situation worthy of further observation. One interviewee visited the control room and was reassured when he tested operators by asking them to use the cameras in ways prohibited by protocols and they refused to do so.

The shift pattern for operatives is four days on, four days off, with shifts of 12 hours' duration, a popular arrangement. The hours of work are 7 am to 7 pm in the daytime and 7 pm to 7 am at nights. In practice, shifts tend to begin and end up to an hour earlier because of informal agreement. Shifts take responsibility for covering their own leave and sickness absences, which again seems to be a popular arrangement. There is frequent opportunity for those who wish to work on their rest days to do so. Rates of pay for operatives vary from £7 to £9.50 an hour.

Only one relatively brief period of observation was conducted in the control room during this period of research (from 11 pm on a Thursday to 1 am on Friday morning), and further periods at other times are planned. Whilst it had been expected that at such a time there would be a wealth of incidents worthy of observation this proved not to be the case, and no incident reports were raised during the visit. This seems in line with the result of the analysis of incident and observation reports, which suggests that an average of just over three reports a day are compiled. The mood in the control room at the time of the visit was calm; the operators were observing ATMs, bus stops and public houses.

Despite the calm atmosphere the research team was aware that the police in Lewisham and Catford were busy attending incidents, and indeed sirens were heard and patrol cars seen by the team both before and after the visit to the control room. No calls were received in the control room during the visit and it was apparent that a degree of frustration was felt by the operators that they did not know where to look for incidents. It was mentioned to the research team that it would be beneficial for the operators to have a police radio in the control room so that police calls to attend incidents could be monitored, perhaps while the police were on their way to attend. In some cases, it was believed, CCTV monitoring would save police time by revealing that an incident had never required police attendance or no longer required it. One comment was made that 'we are the eyes of the police but we don't know where to look'.

A number of views came from a variety of sources on how CCTV operators could be directed to watch areas and people most likely to be of interest. One interviewee employed in street crime co-ordination suggested that a small number of known offenders commit the majority of street crime, and that issuing photographs of these offenders to CCTV operators would be fruitful. Alternatively, a police officer could be seconded to work in the control room, which would create an immediate partnership bond between the police and the CCTV room as well as allowing CCTV operators' observations to be directed with more purpose. This has worked successfully in other areas – sometimes using police allocated to light duties – and has helped build up a rapport and an understanding between the two parties.

Only one of those people interviewed had any complaint about the quality of the images produced by the cameras, and some commented that if offenders knew how good they were the deterrent value of CCTV would be enhanced. However, one operator complained about quality at night, when street lighting adversely affects the images. The research team noted that glare from street lamps and vehicle headlamps did obscure detail on the images, and that when camera positions were changed quickly, the monitor produced a 'trail' which hindered attempts to track individuals on the streets.

A general point was made that the successes of CCTV do not appear to be publicised enough. This may be because lack of feedback from the police means that successes are not reported even to the CCTV room. The absence of feedback also means that opportunities for training of operators are missed.

The continuing relationship between the old control room at Goldsmiths College and the new one a Catford has still not been formalised, and although there is no evidence that this is impacting negatively on CCTV effectiveness there is potential for it to do so. The management changes at the Catford control room have delayed the signing of a contract between Goldsmiths and the Borough, with the result that Goldsmiths has not yet agreed what contribution it will make to the cost of the Catford control room.

1.3 The impact of cameras on crime and disorder

Few of those interviewed were willing to state that they felt crime and disorder had decreased with the advent of CCTV, although there was a feeling that fear of crime may have been allayed. Several interviewees mentioned the high street in New Cross, a notorious area for street robbery. Here it is said that muggers select targets in the high street and wait until they leave the area viewed by the cameras before attacking them. As one interviewee put it 'after crime hot spots are covered with CCTV, they are still crime hot spots'.

One subject commented that more could perhaps be done to make the public aware of which areas were covered by the cameras so that they could ensure if they were followed that they remained in 'protected' areas. However it was accepted that the level of knowledge on the part of the public, even of the existence of CCTV, was very poor.

Most interview subjects were unimaginative when asked to think of mechanisms by which CCTV might work to reduce crime. Most mentioned the cameras' capacity to deter offenders and to assist detection, as well as to reduce fear. A suggestion by the research team that people might be encouraged by CCTV to reclaim districts from offenders met with little support.

Comment from the Community Safety Team suggested little confidence that CCTV was good at protecting people from violence. It was also thought that while the police were happy to attend the CCTV room to obtain evidence in their investigations, they were unlikely to respond to incidents drawn to their attention by CCTV.

The importance of dovetailing crime prevention measures was mentioned by many of those interviewed. The radio link was particularly cited. As one security manager put it: 'CCTV scores seven out of ten on its own, but with the radio link that goes up to nine and a half.' The radio link allows retailers to be proactive as a group (it creates a 'business community', in the words of another respondent) and the retailer can be waiting for known shoplifters before they arrive. However, another respondent was disappointed at the level of participation in the radio link. Some retailers opt out of the scheme because allegedly they 'always want something for nothing' and balk at the cost. Others are in the scheme but do not participate fully.

While perception of offending levels is of interest, the main data on the impact of CCTV on actual offending levels will come from the analysis of crime data planned for the next stage of research.

1.4 Public perceptions of CCTV

No-one interviewed felt able to claim that the public now used areas they would not have used before CCTV, or that they ventured out later in the evenings as a result of the camera coverage. At least one interview subject suggested that the proliferation of CCTV might induce more fear of crime.

It was suggested by one subject that the public needed to be aware that the CCTV cameras were monitored, and that the latter were routinely used to observe individuals in case they might be victimised. This subject suggested that the public would respond favourably to seeing cameras moving and following them as they went about their business. However, the main requirement in the eyes of many of those interviewed was that there should be a police response. According to one police officer the public feel reassured not because of the cameras but because they presume that there will be a response to the cameras' observation of an incident. A member of the Community Safety Team commented that it is important for the public to see a response even if no arrest results; whereas the police might measure the efficacy of the cameras by whether or not they make an arrest as a result of a call from the control room, the public only need to see a police response to feel reassured.

The low level of knowledge on the part of the public about CCTV led many respondents to suggest that businesses and residents called for the installation of CCTV in their own areas simply because they had heard about it being installed in neighbouring districts, and were shouting 'me too'. One police officer commented that it is not the case that people feel better for the presence of CCTV cameras (as they quickly become 'part of the furniture'), but that they feel worse if they perceive they are being left out of CCTV provision. This may also be the case for businesses.

It is difficult at present to assess offenders' perceptions of CCTV, although recent research by Gill and Loveday (2003) has concluded that while offenders are sceptical about cameras having crime prevention benefits, this is less the case for those who have been caught on camera. The point was often made that the successes of cameras need to be publicised, especially in the media. However, one senior interview subject made the point that word of mouth between offenders themselves is more important: 'Once an offender is caught by the cameras the people he talks to will be deterred.' This same interview subject averred that there was already plenty of publicity about CCTV, and that as there was no really local newspaper in Lewisham people there do not get to read about local issues. According to this respondent: 'We live in a community of strangers. It's teeming with people but they don't look out for each other. Criminals will be aware of the cameras but the public won't be.' This respondent thought it regrettable that people expected the state to look out for them rather than looking out for each other, and that this created dependence.

A member of the Borough Council's Regeneration Team said he was sceptical of CCTV's ability to reduce crime, and that it was better at changing the public's perceptions. One benefit of the cameras was the fillip they were able to give to business confidence, but this interviewee said that if he had been asked in 1996 whether the cameras would still be in place seven years later he would have said no, that they were just a passing fad. He noted that CCTV was the panacea in 1996 and that now the new panacea was street wardens. This clamouring for new initiatives comes from the public but is fuelled by the media.

1.5 The relationships between internal directorates, partners in crime reduction, the police and the courts

There is general acceptance that CCTV depends for its effectiveness on good working partnerships between the control room, the police, local businesses (especially retailers in town centre schemes), street wardens, the Borough Community Safety Team and the shopping centre security teams. Interview subjects working in every one of these areas accepted this need, and the comment that 'CCTV is a tool amongst tools' which can only work in conjunction with other crime reduction measures such as street wardens and the radio link was a typical view.

There is much practical evidence that CCTV is benefiting from good partnerships. The most enthusiastic comments came from interview subjects associated with the relatively new street warden schemes in Lewisham and Catford. When the Catford scheme was first set up the wardens were based in Eros House, where the CCTV control room had just been set up. Now that the Lewisham warden scheme has begun all Catford and Lewisham wardens are based in new premises between the two town centres. It was suggested that this arrangement was more suitable because of personality clashes between some wardens and some CCTV operators.

Wardens and CCTV operators have very different jobs and in one respect – their level of engagement with the community – they are almost opposite. According to one interviewee responsible for recruiting wardens, they are chosen because they are out-going, willing to engage with the community, tolerant of the deficiencies of others and responsive to a need for help. An important function of street wardens is to talk to troubled people and to offer them assistance or to show them where they can go for help. CCTV operators, on the other hand, are separate from the community they are watching, and indeed many of those spoken to commuted many miles to work, although there were plans at the time of the research to recruit more local staff.

Despite their different agendas wardens and CCTV operatives have a very good working relationship, facilitated by the radio link. One subject described the relationship as 'as good as it could be' and thought that there was 'absolutely no doubt that CCTV can do more because of wardens'. Another manager connected with wardens commented that 'CCTV is without doubt our strongest partner. Because of CCTV wardens do not have to stand around observing a situation for long periods, but instead can pass on the observation task to the CCTV room and get on with their patrolling.' The CCTV room, for its part, is glad to have some guidance on what to observe and a rationale for observing it.

An example was quoted of how the relationship works in practice. Wardens in Lewisham received intelligence on the street of a planned end-of-term fight between local schools outside McDonalds in Catford. By the time youths began to assemble they were already being monitored by the CCTV room, which had been told about the intelligence. Wardens receive intelligence from the police at weekly meetings, and this also is routinely passed to the CCTV room. The relationship between CCTV and the police is covered in more detail later.

Section Two:
Analysis of Incident and Occurrence logs

2.1 Introduction

Incidents seen and responded to by CCTV operators in the control rooms are logged and recorded on a database. Before the move of the control room to Catford only paper records were maintained. The research team gained access to the paper incident and occurrence logs from June 2001 to June 2002 and the database records from July 2002 to the middle of August 2003. It should be noted that these records are the subjective interpretation of events witnessed by operators and (when input to the database) by the inputter.

This section describes and analyses first the data obtained from all 1,248 incident and occurrence logs produced by the CCTV control room in the period between 1st June 2001 and 31st June 2002 (the period immediately prior to the relocation of the control room from Goldsmith's College to Catford), and second, all 2,008 logs recorded in the new Catford control room between 1 July 2002 and 12 August 2003. During this period 58 cameras were in use, covering New Cross, Deptford, Catford, Lewisham and Bellingham Green, rising to 113 during 2003, as Phase Two of the scheme was implemented. The purpose of the analysis was to establish:

- how many incidents and occurrences were observed and recorded by CCTV operators
- what types of events came to the attention of the control room, and the relative frequency of each type of event
- how these events came to be noticed, and
- what action was taken as a result of the surveillance of these incidents, and by whom.

Incident reports take the form of narratives compiled by CCTV control room operators of what happened between an event being discovered or noticed and the cessation of observation of the scene. To achieve the research objectives it was necessary to create a typology of incidents (e.g. no offence, disturbance, shop theft, etc.) and also to categorise how the incident came to be noticed and the details of the resulting action.

2.2 CCTV control room interactions

Catford and Lewisham town centres have had a radio link scheme, known locally as Saxon Guard, in operation since August 1999. In the summer of 2003 Catford had 30 users, mainly retailers, and Lewisham between 50 and 60. Radio handsets are held by participant retailers, beat police officers and street wardens (see below), and there are desktop sets in the CCTV control room. The primary purpose of the radio link is to provide communication between businesses using the scheme, but the coverage also allows reaction to events by the beat police officers and the CCTV control room.

The CCTV control room also interacts with the police control and dispatch (CAD) room. Although there is no direct communication link, the CAD room itself has three 'slave' monitors to enable the police to monitor the size and nature of incidents and to help them assess how to respond. CCTV control room operators can alert the police by switching the

CAD room slave monitors to observe incidents. If further communication is needed this has to be conducted by telephone.

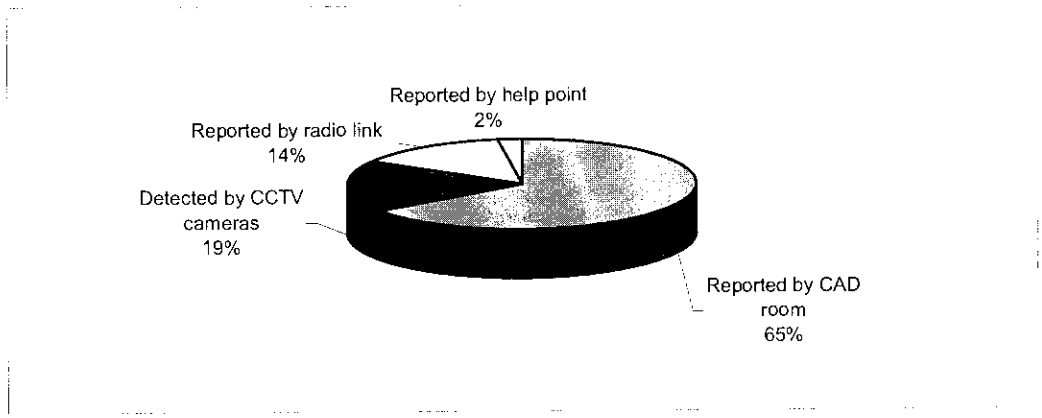
The Catford Street Warden scheme has been operative since July 2002, and the Lewisham Street Crime Warden scheme since June 2003. Both sets of wardens carry radio handsets and are in direct communication with the CCTV control room.

Incidents can be brought to the attention of the CCTV control room by businesses, street wardens and beat police officers through the radio link, by police officers through their CAD room, or by any other observer by telephone. A contact telephone number for the control room is publicly available. There is also a public help point at Bellingham Green which allows members of the public to report incidents directly to the control room.

2.3 Findings from 2001/2002

The CCTV incident and occurrence reports were classified according to how incidents came to the notice of the control room (see Figure 1 below), by whether the control room was able to locate the incident[1] (where the control room itself did not discover it) and by whether or not the police responded. Over the 13 months for which incident logs were analysed 1248 reports were created (an average of just over three per day). Of the 1248 incident logs 971 were capable of categorisation by how the incident came to be noticed. Of these 971 incidents 633 (65.2%) were reported to the control room by the police CAD room, 180 (18.5%) were detected by CCTV control room operatives, 136 (14.0%) came to be noticed via the radio link and 22 (2.3%) were reported by members of the public via the Bellingham Green help point. This means that incidents detected by the CCTV control room and deemed worthy of the raising of an incident report amounted to an average of fewer than one every other day.

Figure 1. How incidents came to the notice of the cameras



Where the CCTV control room detects incidents, it is of interest to note whether a police response resulted from the control room's call to the CAD room. Of the 180 incidents detected by the CCTV control room 125 (69.5%) resulted in the observation of an attendance by the police after details were reported to the CAD room. On 51 occasions (28.3%) the CAD

[1] Incident reports were examined only to assess the success of control room operators at locating incidents in 'real time' (as the incident was still in progress). Where it was not possible to locate incidents in real time it is nevertheless possible that useful background recordings of incidents might be available. The availability of such background recordings will feature in the next stage of research, and will be a key element of the study of CCTV's cost-effectiveness.

room took a report of the incident but no police attendance was observed, and in the remaining four instances the CAD room could not be contacted. It should be noted that there is no police feedback on whether they in fact attended specific incidents, so they may in fact have attended some of the incidents but without being observed by the control room. What these findings do reveal is that there is on-going use of CCTV by the police, both proactively and reactively.

Where incidents are detected other than by the control room, an important measure of the success of the CCTV operators is the proportion of incidents they are able to locate and observe. The control room successfully located and observed 497 (78.5%) of the 633 incidents reported by the CAD room, and in the vast majority of these instances (473, or 95.1%) the police were observed attending by the control room staff. There was a greater degree of success on the part of the control room in locating incidents reported by the radio link. All but five of the 136 incidents reported in this way (96.3%) were successfully located, and the police attended 123 of them.

The control room was successful in locating all 22 of the incidents reported by the Bellingham Green help point, of which seven instances (31.8%) were reported to the police and resulted in an attendance.

2.3.1 Incidents by type

Table 1 below shows a breakdown of the 971 incidents that were capable of classification. The table gives a flavour of the types of occurrences that come to the notice of the CCTV cameras, and is followed by an analysis of how successful the control room was in detecting, locating, and obtaining police response to each type of incident.

Table 1. Number of incidents by type of incident

Type of incident	Number	Percentage
Nuisance behaviour and causing disturbance	155	16.0%
Road traffic accidents	140	14.4%
Fighting	137	14.1%
Shoplifting	68	7.0%
Injured or ill person	60	6.2%
Assault	53	5.5%
Drunk and disorderly	52	5.4%
Robbery	46	4.7%
Fly-tipping	41	4.2%
Alarm activation	41	4.2%
Possession of an offensive weapon	29	3.0%
Suspicious behaviour	28	2.9%
Fraudulent credit cards or cheques	20	2.1%
Criminal damage	18	1.9%
Missing person	18	1.9%
Drug offences	13	1.3%
Drink driving	9	0.9%

Stolen car	9	0.9%
Harassment	7	0.7%
Snatch and dip offences	7	0.7%
Fly-posting	6	0.6%
Threatening behaviour	6	0.6%
Potential suicide	4	0.4%
Abduction	2	0.2%
Racial incidents	1	0.1%
Murder	1	0.1%
Total	**971**	**100.0%**

2.3.1.1 Nuisance behaviour and causing disturbance

Incidents logged	**155**	
Of which CCTV detected	9	(5.8% of total)
Of which police responded	7	(77.7%)
Assistance sought by police CAD room	**111**	**(71.7% of total)**
Of which CCTV successfully located incident	92	(82.9%)
Radio link reported	**19**	**(12.3% of total)**
Of which CCTV successfully located incident	19	(100%)
Of which police responded	19	(100%)
Bellingham Green help point reported	**16**	**(10.3% of total)**
Of which CCTV successfully located incident	16	(100%)
Of which police responded	3	(18.8%)

General nuisance and disturbance was the single most common type of incident logged, accounting for 155 incidents or 16% of all the incident logs examined. Few of the incidents were initially detected by the CCTV cameras, but when the control room was made aware of disturbances, whether by the police, the radio link or the help point, there was a high rate of success in locating incidents on the part of the control room.

Generally the police were responsive to requests to attend these incidents. Of the 19 incidents where the police were not observed to attend, 13 (68.4%) were reports from the Bellingham Green help point. From some of these reports it was not apparent that a police response would have been appropriate, as illustrated by the following quotation from an incident report:

> *... one of the residents near Bellingham Green park complained about people playing football in the park ... when we placed the camera on them we noticed they were matured men ... we used the speaker phone and advised them to leave before we contacted the police ... I then placed camera 61 onto CAD room monitor for the operator to view but the operator told me that they had other important things to deal with.*

2.3.1.2 Road traffic accidents

Incidents logged	**140**

Of which CCTV detected	18	(12.9% of total)
Of which police responded	14	(77.7%)
Assistance sought by police CAD room	**116**	**(82.9% of total)**
Of which CCTV successfully located incident	109	(94.0%)
Radio link reported	**6**	**(4.3% of total)**
Of which CCTV successfully located incident	6	(100%)
Of which police responded	6	(100%)

Road traffic accidents were more likely than disturbances to be detected by the CCTV control room, but the great bulk were reported by the police with a request for camera observation. When asked for such assistance the control room was successful in locating the incident in 94% of cases, a commendable result, although presumably the cameras were too late to observe the actual collision.

2.3.1.3 Fighting

Incidents logged	**137**	
Of which CCTV detected	33	(24.1% of total)
Of which police responded	31	(94.0%)
Assistance sought by police CAD room	**95**	**(69.3% of total)**
Of which CCTV successfully located incident	67	(70.5%)
Radio link reported	**8**	**(5.8% of total)**
Of which CCTV successfully located incident	8	(100%)
Of which police responded	8	(100%)
Bellingham Green help point reported	**1**	**(0.7% of total)**
Of which CCTV successfully located incident	1	(100%)
Of which police responded	1	(100%)

Almost one in four of the 137 incidents of fighting reported in the data was first detected by the cameras, and the police responded to all but two of these. On the basis of this analysis, alerting the police to fights in progress is one of the main successes of the cameras. The cameras were less successful in locating fights reported to them by the police CAD room, perhaps because of the tendency of fights to cease quickly. However, the discovery of fighting is marked by a very good police response.

2.3.1.4 Shoplifting

Incidents logged	**68**	
Of which CCTV detected	6	(8.8% of total)
Of which police responded	2	(33.3%)
Assistance sought by police CAD room	**3**	**(4.4% of total)**
Of which CCTV successfully located incident	2	(66.7%)
Radio link reported	**59**	**(86.8% of total)**
Of which CCTV successfully located incident	58	(98.3%)
Of which police responded	53	(91.4%)

Shoplifting usually occurs inside shops and therefore outside the range of street CCTV cameras. It is therefore not surprising that few shoplifting incidents were detected by CCTV. However the data suggests a very good level of co-ordination between the radio link, the CCTV room and the police. Of 59 incidents of shoplifting reported by radio, all but six led to a police response and CCTV camera coverage of the reaction. It is particularly commendable that the control room was able to locate the aftermath of all but one of the shoplifting incidents reported by radio, and that the cameras themselves appear to have detected six incidents.

2.3.1.5 Injured or ill person

Incidents logged	**60**	
Of which CCTV detected	10	(16.7% of total)
Of which police responded	10	(100%)
Assistance sought by police CAD room	**44**	**(73.3% of total)**
Of which CCTV successfully located incident	39	(88.6%)
Radio link reported	**4**	**(6.7% of total)**
Of which CCTV successfully located incident	4	(100%)
Of which police responded	13	(75.0%)
Bellingham Green help point reported	**2**	**(3.3% of total)**
Of which CCTV successfully located incident	2	(100%)
Of which police responded	2	(100%)

There were 60 'injured or ill person' incidents reported in the data. In most cases (44 instances, or 73.3% of the total) the police CAD room requested camera assistance, but the CCTV control room detected ten incidents (16.7%) and the police responded to every one. Significant numbers of incidents in this category were also reported by the radio link and the Bellingham Green help point, with correspondingly good results measured both by CCTV's ability to locate the incident and by its success in generating a police response.

2.3.1.6 Assault[2]

Incidents logged	**53**
Of which CCTV detected	6 (11.3% of total)
Of which police responded	6 (100%)
Assistance sought by police CAD room	**44 (83.0% of total)**
Of which CCTV successfully located incident	37 (84.1%)
Radio link reported	**3 (5.7% of total)**
Of which CCTV successfully located incident	3 (100%)
Of which police responded	3 (100%)

The fear of being assaulted is one of the main reasons for public support of CCTV cameras. The cameras detected only a few of the logged assaults, but importantly they were able to locate the scene in the vast majority of cases where there was a request for camera observation. Moreover, and another way of looking at these findings, is that during the period of analysis six victims were assisted more quickly than they might otherwise have been by the presence of CCTV.

2.3.1.7 Drunk and disorderly

Incidents logged	**52**
Of which CCTV detected	11 (21.2% of total)
Of which police responded	11 (100%)
Assistance sought by police CAD room	**40 (76.9% of total)**
Of which CCTV successfully located incident	35 (87.5%)
Radio link reported	**1 (1.9% of total)**
Of which CCTV successfully located incident	1 (100%)
Of which police responded	1 (100%)

The CCTV control room was quite good at detecting drunk and disorderly persons, and their reports to the police drew a 100% response. The control room also fared well in identifying drunk and disorderly persons reported from elsewhere. Again, disorder is something the public would expect CCTV to tackle, and the analysis suggests that it is offering considerable assistance to the police.

[2] Assault differs from fighting in that the latter is more likely to be disorder caused by consenting factions or individuals while the former is a crime with a perpetrator and a victim.

2.3.1.8 Robbery[3]

Incidents logged	**46**
Of which CCTV detected	1 (2.2% of total)
Of which police responded	1 (100%)
Assistance sought by police CAD room	**41 (89.1% of total)**
Of which CCTV successfully located incident	19 (46.3%)
Radio link reported	**4 (18.7% of total)**
Of which CCTV successfully located incident	1 (25.0%)
Of which police responded	0 (0%)

CCTV is poor at detecting robbery: only one robbery was detected by the cameras. The control room's success in locating the scenes of robbery is less than that for other types of incident. However, given that robbery is essentially a fast-occurring offence the fact that nearly half the scenes were located suggests that the police may be receiving useful assistance.

2.3.1.9 Fly-tipping and fly-posting

Incidents logged	**47**
Of which CCTV detected	43 (91.5% of total)
Of which police responded	13 (30.2%)
Assistance sought by police CAD room	**1 (2.1% of total)**
Of which CCTV successfully located incident	1 (100%)
Radio link reported	**1 (2.4% of total)**
Of which CCTV successfully located incident	1 (100%)
Of which police responded	1 (100%)

Fly-tipping and fly-posting are incidents more likely to be detected by CCTV than any other method, and in fact all but four of the 47 instances would probably have gone unobserved were it not for the cameras. The amount of time taken and the high visibility of fly-tipping in progress mean that the control room can identify the incident more easily, so long as the incident is taking place within the view of the cameras. However the police are less likely to respond to these offences, probably because they are seen as less serious and because other agencies might be expected to deal.

2.3.1.10 Alarm activation

Incidents logged	**41**
Of which CCTV detected	12 (29.3% of total)
Of which police responded	6 (50.0%)
Assistance sought by police CAD room	**29 (70.7% of total)**
Of which CCTV successfully located incident	27 (93.1%)

[3] Incident reports classified as 'robbery' include street and commercial robberies. Future analysis will consider the two types separately.

Given that most alarms are audible rather than visible it is perhaps surprising that the cameras appear to have detected almost a third of the incidents logged.[4] However, the police are less likely to respond to reports of sounding alarms than to many other incidents in this analysis, and may not in any event request camera assistance to deal with such a matter. One possible valuable service that CCTV could provide would be to observe premises when key holders attend alarms out of hours, to ensure their safety in case burglars are still on the premises.[5]

2.3.1.11 Possession of an offensive weapon

The incident types discussed from here on are relatively rare events, and for that reason we have dispensed with the summary tables, although the statistics relating to CCTV are presented for discussion.

There were 29 incidents, 22 of which were logged because the CAD room requested assistance with locating the offender. The camera search was successful on half of these occasions, a commendable result given the stealthy nature of the offence. On three occasions the cameras actually detected the carrying of an offensive weapon, and each of these occurrences was met with a police response following notification of the CAD room. The radio link also identified four offences of this nature; all were located by the CCTV control room and all drew a police response.

2.3.1.12 Suspicious behaviour

There were 28 logged incidents of suspicious behaviour, of which 11 were detected by the control room, ten reported by the police and seven by the radio link. The control room located all but one of the suspicious reports from the police and all of those reported by radio link. Police response to suspicions reported by the CCTV control room was an encouraging 16 out of 18 incidents, or 88.9%.

2.3.1.13 Fraudulent credit cards or cheques

The radio link was instrumental in reporting 14 out of the 20 incidents in this category, the control room was able to assist in all cases, and there was a police response in all but one. The remaining six cases were reported by the police CAD room, and again the CCTV control room succeeded in locating the majority of incidents. It is unsurprising that the cameras themselves detected no incidents in this category, since the offence would be committed in-store and therefore not within eye shot of the camera.

2.3.1.14 Criminal damage

The majority of the logged instances of criminal damage were detected by the CCTV cameras themselves, although police response was forthcoming in only seven of the 11 instances where a report was made to the CAD room. Of six cases reported by the CAD room, the control room succeeded in locating four. One report was made from the Bellingham Green help point; the cameras located and reported the incident but the police did not respond.

2.3.1.15 Missing person

Some notable successes were achieved by the control room in locating missing persons. In all, three missing persons were located by the cameras from 18 logged incidents. While this is a

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[4] Further analysis is needed to establish precisely how different types of incident were detected by the control room and this will be a feature of the next stage of research.

[5] Gill and Hemming (2003) reported that one result of police refusing to attend unconfirmed intruder alarm signals might be increasing instances of key holders attending premises where burglars are operating.

small proportion, the cameras and their operators will have deservedly enhanced their reputations substantially on each occasion.

2.3.1.16 Drug offences

Of 13 logged drug offences, two were detected and reported by the CCTV control room, and generated a police response. The cameras were also successful in locating eight out of the ten drug offences reported by the police, and the one such offence reported by the Bellingham Green help point.

2.3.1.17 Drink driving incidents

The police requested assistance in locating suspected drink drivers on seven logged occasions, and the control room was successful in all but one instance. The quotation below from an incident report shows the interaction between the police CAD room and the CCTV control room:

> *At approx. 12:37 hours we received a call from CAD asking us to look for a dark blue car ... we located the car ... and put it on monitor 12 for CAD to see ... At approx. 12:40 hours the police arrived on scene ... the police arrested the driver. (CAD informed us it was on drink driving charges).*

In addition the cameras themselves detected two incidents of suspected drink driving, and the police responded on one of these occasions.

2.3.1.18 Stolen car

The cameras were successful in locating three suspected stolen cars out of seven police requests for assistance, and in detecting two incidents themselves.

2.3.1.19 Harassment

There were seven logged incidents of harassment during the period under analysis, all of which were requests from the CAD room to locate the incident. The control room was able to locate five out of the seven. This suggests that CCTV is in most cases able to monitor and assess a situation, providing support, back-up and evidence for both the police and for those experiencing the incident.

2.3.1.20 Snatch and dip offences

'Snatching' is defined as a theft involving force to the property stolen but not to the owner, while 'dipping' is essentially pickpocketing.

In the data set there were a total of seven incidents of snatch and dipping thefts during the period examined, of which four were reported via the radio link and three through the CAD room. In two incidents reported by the CAD room the control room was unsuccessful in locating the incident or the perpetrator. However, in all offences reported by the radio link the perpetrator was successfully located.

2.3.1.21 Threatening behaviour

No instances of threatening behaviour were detected by the cameras, but of six incidents reported, five were located by the control room, and all resulted in police response.

2.3.1.22 Potential suicide

On four occasions the police CAD room requested assistance in dealing with potential suicides, and on all of these occasions the cameras located the incident.

2.3.1.23 Abduction

Two suspected abductions were reported to the control room by the CAD room, and on both occasions the cameras assisted. The following quotation from an incident report illustrates the type of co-ordination used in such instances.

> *... we received a call from the CAD room asking us to locate two police officers chasing a suspect for abduction down New Cross Road near Amersham Vale ... we located the two police officers who had detained an IC1 male dressed in black ... the man was arrested for taking part in the abduction of an IC4 female.*

2.3.1.24 Incidents not categorised

A major finding from the data is that 277 (22.3%) of all the incident reports contained insufficient information to enable them to be categorised. This leaves doubt as to how CCTV is used and how effective it is in nearly a quarter of all incidents.

However there will always be occasions, especially where the police request assistance and observation of their activities, when details of whether and what offences have been committed will be sketchy. The following quotation from an incident report is an example:

> *... the CAD room contacted us and asked for a camera to cover a plain clothes officer outside the link, Lewisham. Using camera number 36 we located the officer ... a couple of marked police units arrived. They all went into the link ... they came back out with an IC3 male wearing a grey t-shirt without sleeves and jeans ...*

2.3.2 Discussion

As would be expected, the ways in which CCTV is used and the degree of success achieved varies widely between different types of incident (see Table 2 below). Some incidents, such as fly-tipping and fly-posting, take place in the public domain and are therefore susceptible to being observed by the cameras. The most likely effect of CCTV will be to increase reporting of these incidents (and therefore their recorded incidence). The cameras appear to have a beneficial effect in protecting the environment from the effects of anti-social activities such as fly-tipping, although it may be that these incidents need to be reported to agencies other than the police if they are to be met with a response.

Other offences, such as shoplifting and credit card and cheque fraud, tend to be committed away from the ambit of street CCTV cameras. Although, as expected, street cameras are not good at detecting such incidents, they nevertheless have a role to play and the radio link (which reports most shop-related incidents) and the CCTV control room seem to work extremely well together. This success is underscored by the good level of police response to reports of such incidents.

Table 2. Proportion of incidents detected by CCTV cameras, by type of incident (most frequently occurring incidents)

Type of incident	Proportion of incidents detected by CCTV
Fly-tipping/Fly-posting	91.5%
Alarm activation	29.3%
Fighting	24.1%
Drunk and disorderly	21.2%
Injured/ill persons	16.7%
Road traffic accidents	12.9%
Assault	11.3%
Shoplifting	8.8%
Nuisance/disturbance	5.8%
Robbery	2.2%

Even where CCTV does not itself detect offences, it appears to be contributing to the work of the police by locating incidents that are reported by the CAD room, enabling the police to judge the level and urgency of their response. Again, the level of success achieved by the CCTV control room after the police requested assistance varies according to type of incident (see Table 3 below).

Locating incidents in real time provides timely information, but even where incidents cannot be located immediately there may well be background recordings that can be used in evidence.

Table 3. Proportion of incidents located by CCTV cameras in response to police request for assistance (most frequently occurring incidents)

Type of incident	Proportion of incidents located by CCTV
Fly-tipping/Fly-posting	100.0%
Road traffic accidents	94.0%
Alarm activation	93.1%
Injured/ill persons	88.6%
Drunk and disorderly	87.5%
Assault	84.1%
Nuisance/disturbance	82.9%
Fighting	70.5%
Shoplifting	66.7%
Robbery	46.3%

In all, judged by these findings it seems that CCTV has a bigger role in policing that has traditionally been understood. It clearly works well with the police and radio links and provides some very positive benefits. At least some offenders will be easier to identify, some will be caught, police resources will be saved because they can be targeted to areas where they are most needed, and perhaps most importantly there will be fewer victims. Elsewhere in this report we develop our understanding of these issues.

2.4 Findings from 2002/2003

During the period 1 July 2002 to 12 August 2003 a total of 2008 classified incidents were recorded, at a rate of just under five per day (up from just over three per day before the Catford control room was opened). Table 4 below shows a breakdown of how the incidents were initiated. Police radio reports and reports by wardens' radio link are understated, as these methods of initiation were not available for the whole period. The 319 incidents initiated by the control room equate to 0.78 per day (up from 0.49 per day before the Catford control room opened).

Table 4. Initiation of incidents observed by cameras

Initiation	Number	Percentage
By police CAD room	1260	63%
By CCTV control room	319	16%
Retail radio link	176	9%
By third parties	136	7%
Police radio report	78	4%
Radio link (wardens)	32	1%
Bellingham Green Help Point	6	0%
Unknown	1	0%
Total	**2008**	**100%**

Table 2.5 below shows a breakdown of the incidents by type. Since the move to Catford the control room itself categorises incidents by type, and a direct comparison between the proportions in this table and those reported earlier at New Cross is difficult. However, there are notable changes, including a sharp rise in the proportion of nuisance disorder incidents (up from 16%) and a lesser rise in the proportion of thefts and shoplifting (up from 7%). The latter increase indicates that the control room may have begun to pick up a greater proportion of serious incidents since the transfer of control.

Table 2.5 Incidents by type

Type of incident	Number	Percentage
Nuisance disorder	474	23.7%
Assault or robbery	308	15.4%
Traffic offences	213	10.6%
Theft and shoplifting	163	8.2%
Suspicious activity	150	7.5%
Missing person/welfare concern	123	6.1%
Public order/drunkenness	94	4.7%
Police/other operation	88	4.4%
Vehicle crime	79	3.9%
Offensive weapon	65	3.2%
Emergency incident	50	2.5%
Alarm activation	47	2.3%
Criminal damage	47	2.3%
Public request	40	2%
Drug-related	30	1.5%
Indecency	17	0.8%
Burglary	17	0.8%
IClient area incident	3	0.1%
Total	**2008**	**100.0%**

2.4.1 Nuisance disorder

Incidents logged	**474**
CCTV controller detected	**75 (15.8% of total)**
Suspects or subject not located	2 (2.7%)
Subject or suspect located – police dealt on scene	39 (52%)
Fire or ambulance service attended	3 (4%)
Police informed but no apparent attendance	15 (20%)
Assisting with police/other incident	5 (6.7%)
Police arrested suspects on scene	11 (14.7%)
Police control room detected	**303 (63.9% of total)**
Suspects or subject not located	124 (40.9%)
View obscured or out of range	15 (4.9%)
Subject or suspect located – police dealt on scene	99 (32.7%)

Fire or ambulance service attended	4 (1.3%)
Police informed but no apparent attendance	23 (7.6%)
Assisting with police/other incident	23 (7.6%)
Police arrested suspects on scene	15 (4.9%)
Third party detected	**37 (7.8% of total)**
Subject or suspect not located	3 (8.1%)
View obscured or out of range	2 (5.4%)
Subject or suspect located – police dealt on scene	12 (32.4%)
Police informed but no apparent attendance	12 (32.4%)
Assisting with police/other incident	6 (16.2%)
Police arrested suspects on scene	2 (5.4%)
Radio link detected	**31 (6.5% of total)**
Suspects or subject not located	2 (6.5%)
View obscured or out of range	2 (6.5%)
Subject or suspect located – police dealt on scene	12 (38.7%)
Police informed but no apparent attendance	4 (12.9%)
Assisting with police/other incident	7 (22.6%)
Police arrested suspects on scene	4 (12.9%)
Third party (police radio) detected	**13 (2.7% of total)**
Suspects or subject not located	1 (3.2%)
Subject or suspect located – police dealt on scene	10 (32.3%)
Police arrested suspects on scene	2 (6.5%)

Nuisance disorder was the single most common type of incident logged, accounting for 474 or 23.7% of all the incidents logs examined. Despite a three-fold increase, since control was transferred, in the proportion of these incidents detected by CCTV, such incidents are still much less likely to be detected by the CCTV controllers than by the police. When the controllers were made aware of an incident, whether by the police control room, a third party, radio link or police radio there was a lower degree of success in locating the incidents than was the case before control was transferred.

2.4.2 Assault or robbery

Incidents logged	**308**
CCTV controller detected	**39 (12.7% of total)**
Suspects or subject not located	1 (2.6%)
View obscured or out of range	1 (2.6%)
Subject or suspect located – police dealt on scene	11 (28.2%)
Fire or ambulance service attended	3 (7.7%)
Police informed but no apparent attendance	13 (33.3%)
Assisting with police/other incident	13 (33.3%)
Police arrested suspects on scene	14 (35.9%)
Police control room detected	**217 (70.5% of total)**
Suspects or subject not located	104 (47.9%)
View obscured or out of range	10 (4.6%)
Subject or suspect located – police dealt on scene	36 (16.6%)
Fire or ambulance service attended	25 (11.5%)
Police informed but no apparent attendance	13 (6.0%)
Assisting with police/other incident	13 (6.0%)
Police arrested suspects on scene	14 (6.4%)
Third party detected	**15 (4.9% of total)**
Suspects or subject not located	5 (33.3%)
Subject or suspect located – police dealt on scene	1 (6.7%)
Fire or ambulance service attended	3 (20%)
Police informed but no apparent attendance	2 (13.3%)
Assisting with police/other incident	1 (6.7%)
Police arrested suspects on scene	3 (20%)
Radio link detected	**20 (6.5% of total)**
Suspects or subject not located	4 (20%)
View obscured or out of range	1 (5%)
Subject or suspect located – police dealt on scene	8 (40%)
Fire or ambulance service attended	1 (5%)
Police informed but no apparent attendance	4 (20%)
Radio link (wardens) detected	**3 (1% of total)**
Suspects or subject not located	1 (33.3%)
Police informed but no apparent attendance	1 (33.3%)
Police arrested suspects on scene	1 (33.3%)
Third party – police radio	**13 (4.2% of total)**

Suspects or subject not located	6 (46.2%)
View obscured or out of range	1 (7.7%l)
Subject or suspect located – police dealt on scene	3 (27.1%)
Police arrested suspects on scene	3 (27.1%)

The second most frequent incident was assault or robbery, accounting for 308 incidents in total. The police control room alerted the cameras to 217 (70.5%) of the incidents logged; of these, the CCTV controller could not locate the subject or suspect on 104 occasions, or 47.9% of the time. Assaults are relatively quick and sudden events, in the aftermath of which the perpetrator seeks to escape the scene. Given this, to have located the incident in respect of nearly half of the reports is a creditable performance, although substantially reduced from the period before control was transferred.

Thirty-nine (12.7%) of the assaults were detected by CCTV, and of these the police attended and made arrests on 14 occasions. This is clearly a major contribution by the CCTV control room to the successful apprehension of assault suspects.

2.4.3 Traffic offences

Incidents logged	**213**
CCTV controller detected	**34 (16% of total)**
Suspects or subject not located	1 (2.9%)
Subject or suspect located – police dealt on scene	15 (44.1%)
Fire or ambulance service attended	11 (32.4%)
Police informed but no apparent attendance	2 (5.9%)
Assisting with police/other incident	4 (11.8%)
Police arrested suspects on scene	1 (2.9%)
Police control room detected	**154 (72.3% of total)**
Suspects or subject not located	21 (38.9%)
View obscured or out of range	15 (9.7%)
Subject or suspect located – police dealt on scene	50 (32.5%)
Fire or ambulance service attended	34 (22.1%)
Police informed but no apparent attendance	9 (5.8%)
Assisting with police/other incident	24 (15.6%)
Police arrested suspects on scene	1 (0.6%)
Third party detected	**9 (4.2% of total)**
Suspects or subject not located	2 (22.2%)
Subject or suspect located – police dealt on scene	2 (22.2%)
Fire or ambulance service attended	2 (22.2%)
Police informed but no apparent attendance	2 (22.2%)
Assisting with police/other incident	1 (11.1%)
Radio link detected	**7 (3.3% of total)**

View obscured or out of range	1 (14.3%)
Subject or suspect located – police dealt on scene	2 (28.6%)
Fire or ambulance service attended	4 (57.1%)
Radio link (wardens)	**3 (1.4% of total)**
Subject or suspect located – police dealt on scene	1 (33.3%)
Fire or ambulance service attended	2 (66.7%)
Third party – police radio	**6 (2.8% of total)**
Suspects or subject not located	1 (16.7%)
Fire or ambulance service attended	4 (66.6%)
Police arrested suspects on scene	1 (16.7%)

Traffic offences coming to the notice of the control room are most often notified by the police, but the logs show a high success rate in locating the subject on the part of the control room (almost 60% when notified by the police). CCTV operators notified the police of 34 traffic offences during the period, and as a result the police attended on 15 occasions, making an arrest on one occasion.

2.4.4 Theft and shoplifting

Incidents logged	**163**
CCTV controller detected	**15 (9.2% of total)**
Subject or suspect located – police dealt on scene	3 (20%)
Fire or ambulance service attended	1 (6.7%)
Police informed but no apparent attendance	2 (13.3%)
Assisting with police/other incident	1 (6.7%)
Police arrested suspects on scene	8 (53.3%)
Police control room detected	**49 (30% of total)**
Suspects or subject not located	21 (42.9%)
View obscured or out of range	2 (4.1%)
Subject or suspect located – police dealt on scene	11 (22.2%)
Police informed but no apparent attendance	4 (8.7%)
Police arrested suspects on scene	11 (22.4%)
Third party detected	**17 (10.4% of total)**
Suspects or subject not located	3 (17.6%)
Subject or suspect located – police dealt on scene	2 (11.8%)
Fire or ambulance service attended	1 (5.9%)
Police informed but no apparent attendance	3 (17.6%)
Assisting with police/other incident	1 (5.9%)
Police arrested suspects on scene	7 (41.2%)

Radio link	**74 (45.4% of total)**
Suspects or subject not located	8 (10.8%)
View obscured or out of range	5 (6.8%)
Subject or suspect located – police dealt on scene	15 (20.3%)
Police informed but no apparent attendance	7 (9.4%)
Assisting with police/other incident	8 (10.8%)
Police arrested suspects on scene	30 (40.5%)
Radio link (wardens)	**4 (2.5% of total)**
Assisting with police/other incident	2 (50%)
Police arrested suspects on scene	2 (50%)
Third party – police radio	**4 (2.5% of total)**
Subject or suspect located – police dealt on scene	1 (25%)
Police informed but no apparent attendance	1 (25%)
Police arrested suspects on scene	2 (50%)

There is an expectation (largely derived from the successes of in-store CCTV equipment) that CCTV will assist in the detection and arrest of shoplifters, and this offence is therefore an important test of the scheme's effectiveness, despite the fact that town centre CCTV can only monitor offenders once their offences have been notified by stores using the radio link. The table above includes general theft as well as shop theft, so the statistics can at best be treated as a guide. Few offences were detected by the cameras, most being reported to the control room by the radio link (45.4%) or by the police (30%). CCTV operators located suspects in around a fifth of incidents reported to them, which is a creditable performance, although down from the period before control was transferred. More impressive perhaps are the 15 instances of theft or shoplifting that were detected by the CCTV cameras, of which police made arrests in over half of the cases.

2.4.5 Suspicious activity

Incidents logged	**150**
CCTV controller detected	**38 (25.3% of total)**
Suspects or subject not located	2 (5.3%)
Subject or suspect located – police dealt on scene	17 (44.7%)
Police informed but no apparent attendance	11 (28.9%)
Assisting with police/other incident	3 (7.9%)
Police arrested suspects on scene	5 (13.2%)
Police control room	**80 (53.3% of total)**
Suspects or subject not located	26 (32.5%)
View obscured or out of range	6 (7.5%)
Subject or suspect located – police dealt on scene	25 (31.3%)
Fire or ambulance service attended	6 (7.5%)
Police informed but no apparent attendance	11 (13.7%)
Assisting with police/other incident	6 (7.5%)
Third party detected	**11 (7.3% of total)**
Suspects or subject not located	1 (9.1%)
Subject or suspect located – police dealt on scene	4 (36.4)
Fire or ambulance service attended	2 (18.2)
Police informed but no apparent attendance	2 (18.2%)
Assisting with police/other incident	2 (18.2%)
Radio link	**9 (6% of total)**
Subject or suspect located – police dealt on scene	3 (33.3%)
Police informed but no apparent attendance	3 (33.3%)
Assisting with police/other incident	3 (33.3%)
Third party – police radio	**9 (6% of total)**
Suspects or subject not located	1 (11.1%)
Subject or suspect located – police dealt on scene	5 (55.6%)
Police informed but no apparent attendance	1 (11.1%)
Assisting with police/other incident	2 (22.2%)

A quarter of the suspicious incidents were raised by the control room, and the ability of the operators to interpret what they see correctly is demonstrated by the fact that from 38 suspicious incidents reported the police made arrests on five occasions (13.2%). Where the control room was alerted by the police to a suspicious incident there was a 31% success rate on the part of the control room in locating it.

2.4.6 Missing persons/welfare concern

Incidents logged	**123**
CCTV controller detected	**11 (8.9% of total)**
Suspects or subject not located	3 (27.3%)
Subject or suspect located – police dealt on scene	2 (18.2%)
Fire or ambulance service attended	3 (27.3%)
Police informed but no apparent attendance	2 (18.2%)
Police arrested suspects on scene	1 (9.1%)
Police control room	**87 (70.7% of total)**
Suspects or subject not located	42 (48.3%)
View obscured or out of range	2 (2.3%)
Subject or suspect located – police dealt on scene	17 (19.5%)
Fire or ambulance service attended	4 (4.6%)
Assisting with police/other incident	17 (19.5%)
Police arrested suspects on scene	2 (22.3%)
Third party detected	**6 (4.9% of total)**
Subject or suspect located – police dealt on scene	4 (66.8%)
Fire or ambulance service attended	1 (16.6%)
Assisting with police/other incident	1 (16.6%)
Help point	**1**
View obscured or out of range	1 (100%)
Radio link	**10 (8.1% of total)**
Subject or suspect located – police dealt on scene	3 (30%)
Fire or ambulance service attended	4 (40%)
Police informed but no apparent attendance	1 (10%)
Police arrested suspects on scene	2 (20%)
Radio link (wardens)	**4 (3.3% of total)**
Subject or suspect located – police dealt on scene	1 (25%)
Fire or ambulance service attended	2 (50%)
Police arrested suspects on scene	1 (25%)
Third party police radio	**4 (3.3% of total)**
Suspects or subject not located	1 (25%)
Fire or ambulance service attended	2 (50%)
Assisting with police/other incident	1 (25%)

It is logical that CCTV cameras will assist in tasks such as locating missing persons and safeguarding the welfare of users of town centres. Most welfare concerns were reported by the police, and subjects were located in nearly a fifth of cases.

2.4.7 Public order/drunkenness

Incidents logged	**94**
CCTV controller detected	**28 (29.8% of total)**
Subject or suspect located – police dealt on scene	12 (42.8%)
Fire or ambulance service attended	7 (25%)
Police informed but no apparent attendance	2 (7.4%)
Assisting with police/other incident	2 (7.4%)
Police arrested suspects on scene	5 (17.8%)
Police control room detected	**46 (48.9% of total)**
Suspects or subject not located	10 (21.7%)
View obscured or out of range	2 (4.3%)
Subject or suspect located – police dealt on scene	16 (34.8%)
Fire or ambulance service attended	1 (2.1%)
Police informed but no apparent attendance	2 (4.3%)
Assisting with police/other incident	3 (6.5%)
Police arrested suspects on scene	12 (26.1%)
Third party detected	**6 (6.4% of total)**
Subject or suspect located – police dealt on scene	2 (33.3%)
Fire or ambulance service attended	1 (16.6%)
Police informed but no apparent attendance	2 (33.3%)
Police arrested suspects on scene	1 (16.6%)
Radio link	**3 (3.2% of total)**
Suspects or subject not located	1 (33.3%)
Subject or suspect located – police dealt on scene	1 (33.3%)
Police arrested suspects on scene	1 (33.3%)
Radio link (wardens)	**6 (6.4% of total)**
Subject or suspect located – police dealt on scene	2 (33.3%)
Police informed but no apparent attendance	2 (33.3%
Police arrested suspects on scene	2 (33.3%)
Third party – police radio	**5 (5.3% of total)**
Subject or suspect located – police dealt on scene	3 (60%)
Police informed but no apparent attendance	1 (20%)
Police arrested suspects on scene	1 (20%)

It is to be expected that CCTV operators are good at detecting public order offences, but to their credit the Catford operators persuaded the police to attend, and as a result several arrests were made.

2.4.8 Police/other operation

Incidents logged	**88**
CCTV controller detected	**11 (12.5% of total)**
Subject or suspect located – police dealt on scene	2 (18.2%)
Assisting with police/other incident	5 (45.5%)
Police arrested suspects on scene	4 (36.4%)
Police control room	**65 (73.8% of total)**
Suspects or subject not located	22 (33.8%)
View obscured or out of range	3 (4.6%)
Subject or suspect located – police dealt on scene	9 (13.8%)
Fire or ambulance service attended	1 (1.5%)
Police informed but no apparent attendance	4 (6.2%)
Assisting with police/other incident	10 (15.4%)
Police arrested suspects on scene	16 (24.6%)
Third party detected	**1 (1.4% of total)**
Assisting with police/other incident	1 (100%)
Radio link	**4 (4.5% of total)**
Suspects or subject not located	1 (25%)
Subject or suspect located – police dealt on scene	1 (25%)
Assisting with police/other incident	1 (25%)
Police arrested suspects on scene	1 (25%)
Third party – police radio	**5 (5.7% of total)**
Fire or ambulance service attended	1 (20%)
Assisting with police/other incident	1 (20%)
Police arrested suspects on scene	3 (60%)

2.4.9 Vehicle crime

Incidents logged	**79**
CCTV operators detected	**13 (16.5% of total)**
Suspects or subject not located	1 (7.7%)
Subject or suspect located – police dealt on scene	8 (61.5%)
Police arrested suspects on scene	4 (30.8%)
Police control room detected	**49 (62% of total)**
Suspects or subject not located	22 (44.9%)
View obscured or out of range	5 (10.2%)
Subject or suspect located – police dealt on scene	6 (12.2%)
Police informed but no apparent attendance	2 (4.1%)
Assisting with police/other incident	4 (8.2%)
Police arrested suspects on scene	9 (18.4%)
Third party detected	**8 (10.1% of total)**
Subject or suspect located – police dealt on scene	2 (25%)
Police informed but no apparent attendance	3 (37.5%)
Assisting with police/other incident	1 (12.5%)
Police arrested suspects on scene	1 (12.5%)
Radio link	**3 (3.8% of total)**
Subject or suspect located – police dealt on scene	2 (66.7%)
Police arrested suspects on scene	1 (33.3%)
Third party – police radio	**6 (7.6% of total)**
Suspects or subject not located	1 (16.7%)
Subject or suspect located – police dealt on scene	3 (50%)
Assisting with police/other incident	2 (33.3%)

2.4.10 Offensive weapon

Incidents logged	**65**
CCTV controller detected	**7 (10.7% of total)**
Subject or suspect located – police dealt on scene	2 (28.6%)
Police informed but no apparent attendance	1 (14.3%)
Police arrested suspects on scene	4 (57.1%)
Police control room detected	**47 (72.3% of total)**
Suspects or subject not located	21 (44.7%)
View obscured or out of range	2 (4.3%)
Subject or suspect located – police dealt on scene	9 (19.1%)
Fire or ambulance service attended	1 (2.1%)
Police informed but no apparent attendance	2 (4.3%)
Assisting with police/other incident	3 (6.4%)
Police arrested suspects on scene	8 (17%)
Third party detected	**4 (6.2% of total)**
Subject or suspect located – police dealt on scene	2 (50%)
Police informed but no apparent attendance	1 (25%)
Police arrested suspects on scene	1 (25%)
Help point detected	**4 (6.2% of total)**
Subject or suspect located – police dealt on scene	2 (50%)
Police informed but no apparent attendance	1 (25%)
Police arrested suspects on scene	1 (25%)
Radio link	**1 (1.5% of total)**
Suspects or subject not located	1 (100%)
Radio link (wardens)	**3 (4.6% of total)**
Suspects or subject not located	1 (33.3%)
Subject or suspect located – police dealt on scene	1 (33.3%)
Police arrested suspects on scene	1 (33.3%)
Third party – police radio	**3 (4.6% of total)**
Suspects or subject not located	1 (33.3%)
Police arrested suspects on scene	2 (66.7%)

2.4.11 Emergency Incident

Incidents logged	**50**
CCTV controller detected	**14 (28% of total)**
Fire or ambulance service attended	12 (85.7%)
Police informed but no apparent attendance	1 (7.1%)
Assisting with police/other incident	1 (7.1%)
Police control room detected	**29 (58% of total)**
Suspects or subject not located	5 (17.2%)
View obscured or out of range	5 (17.2%)
Subject or suspect located – police dealt on scene	5 (17.2%)
Fire or ambulance service attended	8 (27.6%)
Assisting with police/other incident	5 (17.2%)
Police arrested suspects on scene	1 (3.4%)
Third party detected	**4 (8% of total)**
Fire or ambulance service attended	4 (100%)
Radio link detected	**2 (4% of total)**
Fire or ambulance service attended	2 (100%)
Third party – police radio	**1 (2% of total)**
Subject or suspect located – police dealt on scene	1 (25%)
Suspects or subject not located	1 (25%)
Police arrested suspects on scene	2 (50%)

2.4.12 Alarm activation

Incidents logged	**47**
CCTV controller detected	**4 (8.5% of total)**
Suspects or subject not located	2 (50%)
Subject or suspect located – police dealt on scene	1 (25%)
Police informed but no apparent attendance	1 (25%)
Police control room detected	**39 (83% of total)**
Suspects or subject not located	7 (17.9%)
View obscured or out of range	2 (5.1%)
Subject or suspect located – police dealt on scene	11 (28.2%)
Fire or ambulance service attended	1 (2.6%)
Police informed but no apparent attendance	2 (5.1%)
Assisting with police/other incident	16 (41%)
Help point detected	**1 (2.1% of total)**
Assisting with police/other incident	1 (100%)
Third party – police radio	**3 (6.4% of total)**
Subject or suspect located – police dealt on scene	2 (66.7%)
Assisting with police/other incident	1 (33.3%)

2.4.13 Criminal damage

Incidents logged	**47**
CCTV controller detected	**14 (29.8% of total)**
Suspects or subject not located	2 (14.3%)
Subject or suspect located – police dealt on scene	6 (42.9%)
Police informed but no apparent attendance	1 (7.1%)
Assisting with police/other incident	1 (7.1%)
Police arrested suspects on scene	4 (28.6%)
Police control room detected	**24 (51% of total)**
Suspects or subject not located	9 (37.5)
Subject or suspect located – police dealt on scene	7 (29.2%)
Assisting with police/other incident	3 (12.5%)
Police arrested suspects on scene	4 (16.7%)
Third party detected	**3 (6.4% of total)**
Subject or suspect located – police dealt on scene	1 (33.3%)
Fire or ambulance service attended	1 (33.3%)

Police arrested suspects on scene	1 (33.3%)
Help point	**1 (2.1% of total)**
Assisting with police/other incident	1 (100%)
Radio link detected	**1 (2.1% of total)**
Assisting with police/other incident	1 (100%)
Third party – police radio	**4 (8.5% of total)**
Subject or suspect located – police dealt on scene	2 (50%)
Fire or ambulance service attended	1 (25%)
Assisting with police/other incident	1 (25%)

2.4.14 Public request for assistance (various incident types)

Incidents logged	**40**
CCTV controller detected	**1 (2.5% of total)**
Suspects or subject not located	1 (100%)
Police control room detected	**28 (70% of total)**
Suspects or subject not located	7 (25%)
View obscured or out of range	2 (7.1%)
Subject or suspect located – police dealt on scene	5 (17.9%)
Fire or ambulance service attended	4 (14.3%)
Police informed but no apparent attendance	1 (3.6%)
Assisting with police/other incident	8 (28.6%)
Police arrested suspects on scene	1 (3.6%)
Third party detected	**8 (20% of total)**
Subject or suspect located – police dealt on scene	4 (50%)
Police informed but no apparent attendance	2 (25%)
Assisting with police/other incident	2 (25%)
Help point	**1 (12.5% of total)**
Suspects or subject not located	1 (100%)
Radio link detected	**2 (5% of total)**
Subject or suspect located – police dealt on scene	1 (50%)
Police informed but no apparent attendance	1 (50%)

2.4.15 Drug-related

Incidents logged	**30**
CCTV controller detected	**8 (26.6% of total)**
Police informed but no apparent attendance	1 (12.5%)
Assisting with police/other incident	1 (12.5%)
Police arrested suspects on scene	6 (75%)
Police control room detected	1 (3.3%)
Police arrested suspects on scene	1 (100%)
Third party detected	**5 (16.7% of total)**
View obscured or out of range	1 (20%)
Subject or suspect located – police dealt on scene	2 (40%)
Assisting with police/other incident	1 (20%)
Police arrested suspects on scene	1 (20%)
Radio link detected	**4 (13.3% of total)**
Fire or ambulance service attended	1 (25%)
Police arrested suspects on scene	3 (75%)
Radio link (wardens)	**1 (3.3% of total)**
Police informed but no apparent attendance	1 (100%)
Third party – police radio	**2 (6.7% of total)**
Subject or suspect located – police dealt on scene	1 (50%)
Police arrested suspects on scene	1 (50%)

2.4.15 Indecency

Incidents logged	**17**
CCTV controller detected	**1 (5.9% of total)**
Police informed but no apparent attendance	1 (100%)
Police control room detected	**11 (64.7% of total)**
Suspects or subject not located	6 (54.5%)
View obscured or out of range	2 (18.2%)
Subject or suspect located – police dealt on scene	1 (9.1%)
Fire or ambulance service attended	1 (9.1%)
Police arrested suspects on scene	1 (9.1%)
Third party detected	**2 (11.8% of total)**
Suspects or subject not located	1 (50%)
Police arrested suspects on scene	1 (50%)

Radio link detected	**2 (11.8% of total)**
Subject or suspected – police dealt on scene	1 (50%)
Police informed but no apparent attendance	1 (50%)
Radio link (wardens)	1 (5.9%)
Subject or suspect located – police dealt on scene	1 (100%)

2.4.16 Burglary

Incidents logged	**17**
CCTV controller detected	**2 (11.8% of total)**
Suspects or subject not located	2 (100%)
Police control room detected	**15 (88.2% of total)**
Suspects or subject not located	6 (40%)
Subject or suspect located – police dealt on scene	1 (6.7%)
Assisting with police/other incident	3 (20%)
Police arrested suspects on scene	5 (33.3%)

Table 2.6 Proportion of incidents detected by CCTV cameras, by type of incident (most frequently occurring incidents)

Incident type	Percentage of incidents detected by CCTV
Public order/drunkenness	29.8%
Criminal damage	29.8%
Emergency incident	28.0%
Suspicious activity	25.3%
Vehicle crime	16.5%
Traffic offences	16.0%
Nuisance disorder	15.8%
Assault or robbery	12.7%
Police/other operation	12.5%
Burglary	11.8%
Offensive weapon	10.7%
Theft and shoplifting	9.2%
Missing person/welfare concern	8.9%
Alarm activation	8.5%
Indecency	5.9%
Drug-related	2.5%

Public request	2.5%

Table 2.7 Proportion of incidents located by CCTV operators in response to police request for assistance (most frequently occurring incidents)

Incident type	Proportion of incidents located by CCTV
Alarm activation	63.8%
Traffic offences	55.4%
Burglary	53%
Public request	47.5%
Police/other operation	45.4%
Emergency incident	38%
Public order/drunkenness	36.2%
Offensive weapon	35.4%
Nuisance disorder	34.6
Client area incident	33.3%
Assault or robbery	32.8%
Missing person/welfare concern	32.5%
Suspicious activity	32%
Criminal damage	29.8%
Vehicle crime	26.6%
Indecency	17.6%
Theft and shoplifting	16%
Drug-related	3.3%

2.5 Observation in Lewisham CCTV control room on 19, 20 and 21 December 2003

Observations were carried out in the control room from 10 pm on Friday 19 December until 3 am on Saturday 20 December, and later from 10 pm on the same day to 12.30 am on Sunday 21 December. One senior operator and three operators were working a 7 pm to 7 am shift during both periods of observation.

2.5.1 General observations

At the time of the observation the CCTV control room was in possession of a police radio console and could therefore hear communications between the CAD room and officers on the ground. However, communication with the CAD room was not available by radio, and the CAD room telephone number was not being answered on the Friday night/Saturday morning, so communication was made by 999 call on several occasions.

The beat PC for the area attended the control room for a period on Friday night/Saturday morning. It was noted that the presence of this officer, with his direct contact with officers on the ground, substantially improved the ability of the control room to influence operations based on their observations. This officer also drew attention to an earlier incident in Brockley where a gang of youths in sky-blue hooded tops had beaten up an ambulance crew. Operators subsequently tried to locate these youths without success during the period of observation.

On occasions where operators directed the cameras to record footage of specific incidents, they requested a CAD room reference number. Recording this number would have allowed quick access to footage of the incidents if the tapes were later required for viewing or evidence. Perhaps because the CAD room was closed, CAD room reference numbers were not always forthcoming, even after the intervention of the beat PC.

Note was taken of specific incidents where interaction between the CCTV operators and the police actually took place, or might have taken place. These showed good two-way communication between officers and operators, although there were also breakdowns in communications. Examples of specific interactions are detailed below.

2.5.2 CCTV room detecting incidents and involving the police

0045 Sat: Disturbance observed by the cameras in which a woman appears to be injured. Reported to police by 999, and operator stayed on the line to direct officers to the incident and to a particular suspect believed to have injured the woman. Officers attend but operator has difficulty directing them to the correct suspect. Eventually they arrest the suspect.

0135 Sat: A disturbance detected by the cameras. Man and a woman in car stopped in Lewisham town centre. Car surrounded by large group of youths. Control room alerts police and they attend. Subsequently police report that the car driver's keys and handbag were stolen from her. Arrests made.

2.5.3 CCTV room detecting incident but not involving the police

2345 Fri: 3 youths followed from Lewisham town centre because they are suspected of vandalising vehicles. One youth climbs onto a car's roof, activating its alarm. The operators discuss whether to report the incident but decide against because "the police won't want the hassle".

2.5.4 CCTV room observing interactions between the police and suspects

2206 Fri: Group of youths gather outside a public house. Cameras trained to observe the group being spoken to by officers. One arrest was made. Control room request for CAD number unsuccessful.

2250 Fri: One officer is observed talking to a group of 8 or 9 gang suspects. The beat PC uses his radio to direct other officers to assist, while the CCTV operators continue to observe. 5 officers attend.

0025 Sat: 2 male officers arrest a female suspect and call for a female officer to conduct a search. CCTV observes the officers waiting with the suspect but no female officer is readily available and the suspect is released.

2.5.5 Requests to CCTV room from police and others for camera assistance

0020 Sat: Call from the police on radio asking control room to watch the Coach and Horses pub where there has been a report of a man having been bottled in the face. The appropriate camera is out of service and the police are informed.

0155 Sat: Police radio alerts control room to an assault in Lewisham High Street with a victim lying unconscious. Operators unable to find the victim.

0210 Sat: Control room finds assault victim in Lee High Road. Officers still being directed by CAD room to Lewisham High Street. Control room eventually succeeds in directing officers to the correct location of the victim.

0235 Sat: Police report a female climbing onto the roof of Lewisham Hospital, possible suicide attempt. Cameras keep watch.

2230 Sat: Retailer uses radio to contact control room to request observation on the front doors of her shop, where she is waiting alone for workers to arrive and make them secure.

2231 Fri: Cameras tracking youth who according to the beat PC matches the description of a robbery suspect.

2.5.6 CCTV room' wrong interpretation of an incident

2335 Fri: 3 youths spotted apparently kicking a person on the ground. 999 called to report the incident but it becomes apparent that the youths are play fighting. Officers attend.

2.6 Conclusions

The CCTV control room can be judged in a number of ways on the basis of this data. Two important measures are the degree to which CCTV operators are effective at detecting and reporting incidents to the police, and the proportion of those reports that result in a police attendance and appropriate action taken. On the first measure, the CCTV control room does better for some types of incident than for others, as would be expected given the varying levels of visibility of crimes. On the most visible offending behaviour, such as public order, the camera operators initiate a larger proportion of reports, but the evidence of the logs and observations suggests that on the whole they are correct to notify the police, and this is reflected in the number of arrests that result. Where offending behaviour is less overt the police, wardens or victims are likely to bring the event to the notice of the operators, whose task is to locate the incident with a view to gathering evidence and if necessary to protect police officers in the event that they have to make an arrest. At this, too, the operators performed commendably, both according to the logs and during the periods of observation.

Section Three: Assessment of the CCTV Control Room by the CCTV User Group

3.1 Introduction

At the request of the research team an assessment was made of the control room by the CCTV User Group, which reported in October 2003. This section is based on the Group's commissioned report, which has been edited for the purpose of this report. The methodology is described in Appendix A.

3.2 Control room facilities

At the time of the visit (2 July 2003), the 'new' Lewisham control room had been operational for a year. The 'system' was also in the process of undergoing significant growth, from 58 to 113 cameras, and further initiatives were in progress including help points and integration with transport operators' systems. The system is unusual in that transmission is based on microwaves, but with the number of high-rise buildings this gives excellent line of sight free from interference.

The control room facilities were some of the best seen. Ergonomically designed, with more than adequate space and separate facilities for transmission equipment and tape storage, several separate review suites, rest rooms, management facilities and meeting rooms.

The facilities are accessed using a door intercom to a secure reception area, with further access controlled by digi-locks on the doors with mini-dome cameras in the ceilings of the corridors to monitor individuals' movements. The control room itself, however, has no access control and it is therefore possible that others legitimately in the building can gain access.

The main control room was modern and air-conditioned, with a conventional video wall displaying a mixture of full screen and quad images, and a long, wide, separate operator console providing at least three separate operator positions. Time generation for date and time stamping was by 'Rugby clock', also on the video wall. The control room has radio communications with a retail radio system but at the time had no access to police radio, which we believe to be a great disadvantage for the effective operation of the system.

The control system allowed camera control and image selection using either conventional joystick, a keypad or a separate graphical user interface. Image quality was good on all monitors.

Recording of images is on 13 SVHS recorders, running in 12-hour mode with no more than eight cameras on each VCR, giving an image refresh rate in historical (multiplexed) recording mode of just over one second, reflecting 'best practice'. All tapes are uniquely identified, and a de-gausser is used for tape erasing. Incidents are recorded in 'real time' using SVHS recorders in three-hour mode.

Set back from the operators' console was a supervisor's (or police) console with two additional operator positions, so particular incidents could be monitored independently without distracting the other operators.

This is an ideal arrangement (but frequently impossible elsewhere due to space limitations). Located close to this console were working copies of the codes of practice and of the guarding company's procedures available for immediate reference

A separate review facility (one of three) was located at the end of the control room, with the other two accessed from the corridors to avoid disturbance to the operators. Few if any other CCTV control rooms have such an abundance of facilities where tape reviews can be carried out in peace and quiet.

Adjacent to this review suite were the tape store and transmission equipment rooms, all of which painted a professional and workmanlike picture.

In addition there is separate kitchen so operators can prepare their own meals and drinks away from the control room, and adjacent to this a small corridor where we were very pleased to see all the operators' certificates of their training courses were displayed. Additionally, a notice board in the corridor displayed a map showing camera locations and staff notices for the operators, with urgent notices also shown on a whiteboard in the kitchen area.

3.3 Control room operation

3.3.1 Operators' structure

At the time of the visit control room operators were provided by Legion Security, a well known and respected provider of CCTV personnel.

By choice the operators had decided to work 12-hour shifts, with four days on and four off, and with three operators on duty at any time. At the time of our visit there was one supervisor, three senior operators and eight standard operators. With the envisaged 113 cameras this gives a ration of about 40 cameras per operator, which in simplistic terms is generally recognised as appropriate for the effective monitoring of town/city centre systems.

We fully support the graded operator/senior operator/supervisor structure, which assists in developing a career progression path for operators aspiring to progress and should be a model for other systems.

Whilst until recently the CCTV User Group had some concern over 12-hour shifts for operators, and their ability to remain focused and committed throughout such long periods, recent surveys of User Group members who operate similar shift patterns have indicated that managers have not detected any reduction in concentration or effectiveness, with some reporting that on the contrary effectiveness had significantly increased. It also seems to provide increased flexibility to provide cover for sickness and holidays.

Apart from the on-site supervisor, Legion also provide a 'walking supervisor' visiting twice a month, and there are regular monthly meetings between the CCTV manager and Legion's Area Manager.

We were very impressed by the emphasis placed by both Legion and the Authority regarding the importance of professional training for the operators, with all having been (or currently booked in to) the Tavcom BTEC CRO 1 and CRO 2 courses, with their certificates proudly on display.

3.3.2 Operators' expertise

During the assessment a considerable amount of time was spent with as many operators as possible in an individual, one-to-one, informal but structured discussion about their role,

approach and attitudes, to identify their underlying depth of knowledge about the operation of CCTV.

At Lewisham three operators were interviewed, each having been in post for between one and three years. During this period each had not only completed the Tavcom CRO1 and CRO2 courses, which we believe provides an exceptionally good basic qualification for operators, but had also had in-house training on the location of cameras, their specific operational requirements and their inter-relation, racial equality issues, and specialist training/briefing by the police on terrorist awareness.

Each operator was not only aware of the code of practice and procedures manuals but had their own personal copy. During discussion it was evident that all were fully aware of all the constraints and implications the code and procedures placed on them.

Over 50 facets of their knowledge of the procedures and legislative issues relating to CCTV were explored in the discussions, and their actual performance at monitoring observed before, after and throughout the interviews . Without exception all operators demonstrated a 100% knowledge of the issues discussed, and all had an exceptional awareness of the pre-requisites for obtaining evidential quality images (overview of the wider scene and size of image for identification quality) as well as of the need for continuity of evidence.

All were well-dressed, neat and tidy in Legion uniforms,[6] interacting well as a team and supporting each other; the whole atmosphere was totally professional.

In terms of issues that they felt would enable them to improve their sense of achievement or effectiveness, all, without exception, raised the desire for improved feedback from the police in respect of post-incident information on arrests or sentencing of individuals involved in incidents they had monitored.

Seldom have we found such a consistent depth of knowledge by all operators, confirmed in other assessments, and both Legion and the Authority are to be commended on the investment in the depth of training made available to the operators, which has enabled them to achieve these remarkable results.

Discussion of their actions on specific incidents also demonstrated how capably this background knowledge was put into effect.

3.3.3 Control room and system management

3.3.3.1 Management structure

It is generally accepted that most CCTV systems develop in accordance with the specific interests, skills and philosophy of the system manager, and Lewisham is no exception, with the foundation – in terms of the system, its development and the procedures – largely due to the former Manager's personality and approach. The overall authority structure for managing the system had changed with the former Manager's retirement, but was in a state of flux at the time of our visit, with a new and experienced CCTV Manager having been appointed to replace him but resigning shortly after due to personal reasons. We were impressed however by the attitude, personality, depth of knowledge and ability of Lucia Boguzas, the Assistant CCTV Manager, who had taken on an Acting Manager role until another CCTV Manager could be appointed, and it was envisaged that in the near future additional administrative support to her would be provided. In our view she has continued to manage the system in the same effective and efficient manner that the former manager had introduced.

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[6] Uniforms were abandoned for operators at the beginning of 2004, and they now wear smart civilian dress.

Training for the managers had not been ignored, with both the previous Manager and his assistant finding the time necessary for regular attendance at CCTV User Group conferences, to ensure they remained up to date with the latest developments and learnt new approaches from the networking opportunities the conferences provide.

The CCTV Manager reports to the Crime Reduction Unit Head, who in turn reports to the Director of Social Care and Health, who is responsible to the Chief Executive. Such a structure is not unusual in local government, even though many management consultants would suggest that ideally there should be no more than five tiers between a Chief Executive and the operative, to facilitate vertical communication.

We were however very pleased to hear that the Chief Executive for the Authority had spent some time in the control room only the week prior to our visit, demonstrating his personal support for the initiative and expressing interest in the ability of the system to assist in the Authority's emergency planning function.

We were also very impressed by the close working relationship shown by the degree of liaison and communication between Legion and the managers of the system at the time of our visit, as previously under the former Manager, which illustrated a joint ownership of the need to ensure the effectiveness of the system.

The overall management structure is in our view logical and adequate, and throughout the discussions there was evidence of support for the system and those involved from all levels.

3.3.3.2 Management expertise and initiatives

The state of flux in respect of the management of the system at the time of our visit, and the changes that have occurred since, make it difficult to assess management expertise on a continuing basis, and we are therefore solely commenting on the approaches introduced by the previous Manager which were continuing under a temporary appointment at the time of our assessment.

It must be appreciated that the development of CCTV in Lewisham has been the previous CCTV Manager's 'baby' since its inception, and he was principally responsible for the foundations that have now been laid. We believe Lewisham has indeed been fortunate that these foundations are solidly built and throughout reflect 'best practice' in all respects.

3.3.3.3 CCTV strategic development

In particular, both the former Manager and the Authority should be commended for the development of the system; like most, it has been shaped by external influences and constraints, but we are particularly pleased to see such a holistic approach being taken to the future development strategy.

Ultimately the system will not only include the major town centres of Deptford, New Cross, Catford and Lewisham but also the areas of Downham, Grove Park, Brockley, Forest Hill, Sydenham, Lee Green and New Cross Triangle, in residential estates and in parks. The proposed integration of the system with other organisations will also enable the control room to access images from bus, train and underground station cameras and from other systems privately owned by traders' associations and shopping centres.

In addition the control has access to one re-deployable camera to deal with 'hotspots' or issues like fly-tipping.

3.3.3.4 Proactive, intelligence-led monitoring

Lewisham has also recognised that CCTV cannot be seen in isolation, and that 'intelligence-led' monitoring increases effectiveness. Help points are being provided linked to the control room, and they work closely with the Neighbourhood Wardens, local businesses – via the

RadioLink scheme – and members of the public (who are actively encouraged to inform the operators of suspicious activity and to give feedback on the systems in place).

Intelligence-led and proactive monitoring is also greatly assisted by good management information, and in another example of implementing 'best practice' the former Manager introduced the 'Stevenage Management Information system', used by several local authorities (though recently being overtaken by increased use of the i-Comply VTAS system).

The Stevenage system allows regular analysis of incidents not only by town, but even by individual cameras, by operator, by incident categories and by origin – i.e. confirming whether the monitoring was pro-active or in response to police or other third-party information, and providing a summary of incident reports.

Such management information also facilitates the PR element of CCTV, enabling reports to be given to more senior management, councillors and the media to illustrate its effectiveness. Experts tell us criminals do not appear to consider CCTV a significant risk, and thus its deterrent value is minimal. It is argued therefore that the more publicity there is of its successes the more likely criminals are to factor in an increased risk element. It is interesting to see that examples of the success of CCTV in assisting in murder investigations and fly-tipping are given on the Lewisham Borough website, and this practice should be continued.

3.3.4 Public involvement – transparency

Public confidence in the system is seen as critical, and details of camera locations etc. are given on the authority's website, together with the contact points for members of the public to report suspicious activity. The former Manager had attempted to have a 'Lay Visitor' or 'Independent Inspection Panel' appointed, but regrettably this was unsuccessful and the idea foundered.

The inclusion of the CCTV function as part of the Crime Reduction Unit is logical, and assists in developing relationships with other groups, including the Lewisham Town Centre Security meetings.

However, it is usually the relationship with the police which is critical to the real success and effectiveness of the system, and in this respect – based on the interviews held – we do have some concerns. Regrettably we were unable to interview officers from the Metropolitan Police Force involved with the scheme for their views.

It was evident from our discussions that relationships with the front-line officers visiting the control room were excellent, although it was also evident that their knowledge as to the workings of CCTV, and how they could utilise it to maximum advantage, was limited.

We understood from the discussions, however, that at the higher levels, whilst support for CCTV was frequently expressed, there appeared to be a wall of defensiveness which resulted in little practical evidence of such support. This is evidenced by a series of examples.

A copy of the code of practice (dated May 2001) had been submitted to the police for ratification, as a partner with the local authority in the management and operation of the system, but at the time of our visit this had still to be signed and returned. This had delayed its publication as a public document, as required by the Data Protection Act.

Equally, whilst provision of police radios to the control room had been discussed with senior police officers, there appeared to have been no progress and no reasons given.[7] We strongly believe such provision is absolutely essential to ensure maximum effectiveness of communication between the police control room and CCTV control room, to the undeniable benefit of both parties – a view strongly endorsed by both the Home Office and Association

[7] A fully functional police radio is now installed in the control room.

of Chief Police Officers, all of whom see no insuperable problem in respect of data protection implications. One of the strongest reasons for this approach is that police CAD operators have targets in dealing with 999 calls, and are often hard-pressed. They can quickly deploy personnel and vehicles, but it is often some time later that they find time to inform CCTV. However, CCTV is most effective if operators are made aware of an incident as soon as it is known, in case any offender is still in the vicinity and can be identified by camera quickly. Any delay in informing them increases the distance and directions the offender could have gone in the meantime, drastically decreasing the likelihood of finding him/her.

The previous Manager had also apparently approached the police with a view to him providing training to front-line officers to increase their awareness of how CCTV could help them. This is done in many other force areas, and in some cases it is a fundamental element of probationary officer training. Issues like how to stand when making an arrest or detaining an individual can help counter any suggestion of improper actions by the officer, and knowing the locations and capabilities of the cameras and operators can help in dealing with public order incidents. Appreciating the effect of police strobe lights on cameras will ensure images can still be obtained after the arrival of the police.

Of all the forces in the UK, Thames Valley probably have the best reputation for liaison between local authority CCTV control rooms and force officers, and we consider them a model of 'best practice' for us to compare other forces with, and for those forces to aspire to.

On a positive note, the terrorist briefing provided by the police to the operators was a valuable initiative in working together. We understand a new Borough Area Commander has relatively recently been appointed, and hope that under his influence a closer partnership between the police and the CCTV control room can be forged.

3.4 Assessment of documentation

3.4.1 Code of practice

The code of practice is based upon our own CCTV User Group Code of Practice, and therefore in content follows 'best practice' in complying with all 50 of the assessment factors.

Our principal criticism would be that it has not been endorsed by the police, and therefore is not as yet published or readily available as a public document.

Checks on operators compliance with the code were carried out as part of assessing the operators' performance, and it was apparent all interviewed were completely familiar with the contents and requirements

We were also assured (and there was evidence indicating the process had started) that a review of the code is currently in progress to reflect the changes in the size of the system, the areas covered and the changes in management. This provides an excellent opportunity to ensure the police endorse the code.

3.4.2 Procedures manual and contractors' assignment instructions

The procedures manual is also based on the CCTV User Group model; in content it therefore complies with all our requirements in terms of 'best practice', but is also currently under review.

This procedures manual is also supplemented by the guarding company's (Legion Security's) own assignment instructions and documentation.

As part of the assessment we have reviewed all the forms and log sheets produced by Legion to see if they comply with our requirements.

Forms/logs included:

- Accident Report Form
- Incident Report
- Bomb Threat Checklist
- Health and Safety Risk Assessment
- Tape Change Procedure
- Tape Management Sheets
- Incident Report Procedure
- Incident Report Form
- Request to View Procedure
- Request to View Form
- CCTV Visitors' Book
- Tape Review Procedure
- Copy Tape Label Form
- Tape Review and Disclaimer Procedure
- Tape Review and Disclaimer Form
- Stills Production Procedure
- Stills Record Log
- Tape Collection Log
- Equipment Fault Procedure
- Equipment Fault Log
- Witness Statements A, B and C
- Emergency Evacuation Procedure
- Tape Search for Reviews
- Statement for the Viewing/Recording of Evidential Tapes.

We have found only minor variations in content in comparison with our model documents, reflecting personal preferences in presentation and record-keeping rather than matters of substance.

We understand the current review is updating procedures to deal with Subject Access Requests under the Data Protection Act and Directed Surveillance authorisation under the Regulation of Investigatory Powers Act, but at the time of our visit no such requests had been formally received.

Examination of a sample of the operators' records showed the logs and records were being completed correctly, and interviews with the sample of operators indicated they were fully aware of the reasons behind the need for accurate records and of the importance of their completion.

Section Four:
Police Attitudes Survey

4.1 Purpose of the survey

A survey of Lewisham Borough police officers and civilian support staff was conducted in February and March 2004. The purpose of the survey was to discover officers' views on town centre CCTV in general and the Lewisham Borough scheme in particular. Specifically, it was designed to gather information on:

- the degree to which officers support town centre CCTV as a concept;
- the level of individual officers' familiarity with the Lewisham scheme, and the extent to which CCTV had impacted on them in performance of their duties;
- officers' views on the strengths and weaknesses of the Lewisham scheme, and the factors they think determine the scheme's success;
- officers' opinions on whether, how much and in what ways CCTV in Lewisham impacts on specific types of criminal behaviour;
- officers' opinions on how good the scheme is at detecting and alerting the police to various types of criminal behaviour;
- officers' rating of the quality of various aspects of the CCTV scheme; and
- officers' rating of the scheme's ability to perform or assist with specific crime-related functions.

4.2 Characteristics of the sample

Questionnaires were distributed through Lewisham Borough's Chief Inspector Operations to all 530 officers and civilian support staff, and 65 were returned, a response rate of 12.3%. This was a disappointing rate of return, even for a postal survey (where response rates of under 25% are common). Although only two responses to the questionnaire were received from civilian support staff, the responses reflected a cross-section of police officers, as detailed in Table 1 below.

The survey was complemented by a focus group discussion with 12 officers conducted on 31 March 2004. The officers in the group were engaged at the time on duties involving patrolling high-crime locations, and were described by an operations inspector as being in the 'front line', frequently arresting prolific offenders.

Table 1. Characteristics of the survey respondents[8]

	Number	Percentage
Gender		
Male	54	86%
Female	9	14%
Age		
35 or less	31	51%
Over 35	30	49%
Police service		
Five years or less	15	24%
Over five years	47	76%
Service in Lewisham		
Five years or less	31	50%
Over five years	31	50%
Job		
Civilian support	2	3%
Plain clothes police	10	16%
Uniform police	52	81%
Police rank		
Constable/Detective Constable	47	79%
Sergeant/Detective Sergeant	6	10%
Inspector/Detective Inspector	5	8%
Chief Inspector	2	3%
Base station		
Brockley	5	8%
Catford	10	16%
Deptford	11	18%
Lewisham	31	50%
Sydenham	5	8%

8 This and all other tables in this section ignore missing data caused by respondents omitting to answer some questions.

4.3 General attitudes to CCTV

Before asking officers about their experience and views of the Borough's CCTV scheme, they were asked to express their views about town centre CCTV generally. In this respect their responses are comparable with similar questions asked of the general public. Respondents were asked to say whether they agreed or disagreed with, or were neutral about, a number of statements that might be made about CCTV. Six of the statements articulated positive sentiments and three negative. The statements and the results are presented in Table 2.

Table 2. Officers' response to general statements about town centre CCTV

	Agree strongly		Agree		Neutral		Disagree		Disagree strongly	
CCTV in town centres just moves crime out of the view of the cameras	4	6%	27	42%	23	35%	9	14%	2	3%
Too much public money is spent on town centre CCTV that would be better spent on other things	2	3%	2	3%	12	18%	39	60%	10	15%
Town centre CCTV is an unacceptable invasion of citizens' privacy	1	2%	4	6%	1	2%	11	17%	48	74%
Town centre CCTV deters people who might be thinking about committing offences	8	12%	34	52%	13	20%	8	12%	2	3%
Town centre CCTV reassures people and reduces their fear of crime	10	15%	38	58%	13	20%	4	6%	0	0%
CCTV is good for town centres as it attracts businesses	8	12%	28	43%	26	40%	3	5%	0	0%
Shoppers prefer to shop in a town centre with CCTV	7	11%	26	40%	26	40%	5	8%	1	2%
A town centre with CCTV is safer to be in at night than one without cameras	12	18%	31	48%	14	22%	8	12%	0	0%
Town centre CCTV is more important than police on the beat	0	0%	0	0%	6	9%	29	45%	10	46%

Clearly one needs to be careful about the low numbers here. However, the only negative sentiment about CCTV that met with widespread agreement was the so-called displacement hypothesis, that 'CCTV in town centres just moves crime out of the view of the cameras.' Just under half of the respondents agreed with this statement, and only 17% disagreed. It is worth noting at this point that officers who had made good use of CCTV footage in interviews with or prosecutions of suspects were significantly more likely to reject the displacement hypothesis. This will be discussed more fully in due course. The focus group respondents were dismissive of the displacement hypothesis, and felt that if displacement happens it can be countered by installing more cameras:

[CCTV] can reduce and eradicate crime in areas where there is CCTV; if all areas have CCTV then this could help to remove problems.

Another officer noted that even where displacement occurs it can be benign, such as when gangs choose to fight each other in out-of-the-way locations and thus avoid frightening or involving members of the public.

The view that too much money is spent on CCTV received little support from survey and focus group respondents, but the negative statement that was most emphatically rejected by officers was that CCTV is an unacceptable invasion of privacy. Almost three-quarters of respondents disagreed strongly with this viewpoint. An officer in the focus group articulated the feeling thus:

> *Same thing as identity cards, big brother watching you, but if you have nothing to hide then you shouldn't be worried. A picture tells a thousand stories.*

Of the positive statements about CCTV, the only one objected to by officers was that CCTV is more important than police on the beat. While it might be noted that police officers are hardly likely to agree with such a statement, similar views have also been expressed in surveys of the general public, who prefer beat patrols to CCTV cameras when offered the choice.

The positive statements that received the most support were those relating to reassurance of the public. A large majority of officers agreed that town centre CCTV reassures the public (73%) and that it makes town centres safer at night (66%). The view that CCTV deters was also attractive to 64% of officers, but this statement also aroused significant scepticism among a minority: ten officers disagreed, two of them strongly, that CCTV was capable of deterring offenders. One of the focus group officers said that CCTV forces offenders to adopt concealing dress, which makes them stand out as people to watch, particularly in warm weather.

Few officers actively disagreed with the suggestions that town centre CCTV attracts businesses and shoppers, but a sizeable number (40%) reserved judgement on these questions. The focus group participants were sceptical of CCTV's ability to attract shoppers, the predominant feeling being that the public are largely unaware of the cameras.

Overall, officers were more likely to agree with the positive statements and disagree with the negative statements about CCTV. No significant differences were observed between male and female officers, or between respondents from different age groups.

4.4 Officers' familiarity with and experience of the Borough's CCTV scheme

4.4.1 Visiting the CCTV control rooms

In order to assess the extent to which the police are making use of Lewisham's CCTV scheme, the survey asked officers to say whether they had visited the CCTV control rooms at New Cross and Catford and for what purpose. They were also asked to say whether they had contacted either control room, whether they had been directed to incidents by CCTV operators, whether they had viewed CCTV footage and whether they had used CCTV images in the course of interviews with suspects or court cases. Those answering in the affirmative were invited to provide more information about the types of offences in respect of which CCTV had assisted and the nature of any assistance that CCTV had given.

Two out of three officers (67%) said they had visited the Catford control room and just under a half (45%) had visited New Cross. All but three of the focus group respondents had visited one or other of the control rooms. Those who had visited had generally done so frequently, and their calls were more likely to have been for specific operational reasons than for training

or relationship-building. Focus group respondents said that visiting the control room had not been a part of their training. Of the 35 survey respondents who had visited Catford control room in the 12 months prior to the survey, only seven said their last visit was for training purposes, to maintain relationships or to 'look around'. The remaining 28 had visited to view CCTV footage or to collect evidence. All but two of the 21 officers to have visited New Cross control room in the previous 12 months said their last visit was for operational reasons. In all, 53 officers (82%) said they had seen the inside of one or other of the CCTV control rooms. These officers were not significantly more approving of CCTV (as measured by their agreement or disagreement with the statements discussed in the previous section) than those who had not visited.

4.5 Contact and interaction with the control rooms

Table 3 below shows the proportion of officers reporting that they had contacted either CCTV control room, been directed to an incident by monitoring staff, or viewed CCTV images in the course of their duties.

Table 3. Officers' interaction with Lewisham's CCTV

Question	Officers saying 'yes'	Percentage
Apart from any visits to the control rooms, have you personally ever contacted either CCTV control room directly, for example by telephone or radio?	39	60%
To your knowledge, have you ever been asked to attend an incident as a result of information from a CCTV control room in Lewisham?	45	69%
Have you ever asked to view CCTV footage of any incident?	47	72%

A clear majority of officers had made contact with one of the control rooms. The 26 officers who had made contact within the previous 12 months (40% of the total) were asked the purpose of the last such contact. Most contacts (16, or 62%) were made during operations to direct cameras, track or monitor suspects. The remainder were made in the aftermath of incidents, to arrange to view tapes or try to identify suspects.

Most officers also reported that they had been directed to incidents by control room operators, and 35 (78%) had been so directed in the previous 12 months. By far the most common type of incident that officers had been directed to was public disorder, accounting for 24 of the directions (69%). Six of the directions (17%) were to drug-related incidents.

Forty-seven (72%) of the officers said that they had viewed CCTV footage in the course of their duties, and 34 (52%) had done so in the 12 months prior to the survey. Clearly the most common type of offence in respect of which footage was viewed was assault, accounting for 11 (32%) of the 34 viewings in the previous 12 months.

4.6 Seeing the value of CCTV

Almost half of the officers surveyed had made use of CCTV footage, either by showing it to suspects during interviews or by producing it as evidence in prosecutions, as shown in Table 4. Officers reported that use of the images had resulted in a positive effect in the majority of the prosecutions where it had been used, and the effectiveness was even more marked in interviews. A focus group respondent described the effect of showing footage to a suspect:

> *When the offender was presented with evidence on CCTV – rolled his eyes and said 'what can I say?'*

Another said: 'You don't get people arguing over the evidence and whether it's them.'

In all 12 (18%) of the surveyed officers reported that they had used footage effectively in interviews or in court. The general attitudes of these officers to CCTV were compared with those who had not had such an experience. Overall, officers who had experienced the benefit of the Lewisham scheme were more likely to agree with the positive statements about CCTV and disagree with the negative statements, but the difference was not statistically significant. However, those who had used footage effectively in interviews or court cases were less likely to say that CCTV 'just moves crime out of the view of the cameras', and the difference was statistically significant.[9]

Table 4. Use of CCTV footage in interviews and prosecutions

	Tape used in previous 12 months		Tape had an effect	
Showed tape to suspect in interview	28	43%	22	34%
Used tape as evidence in prosecution	30	46%	18	28%

The effect of CCTV footage had been seen in respect of a wide range of types of offending behaviour, although assaults were to the fore. One respondent reported that use of CCTV footage had persuaded an arrested offender to drop a complaint against the officer who had made the arrest.

4.6.1 Officers' opinions of the Lewisham CCTV scheme

Officers were asked to describe in their own words what they considered to be the strengths and weaknesses of the Lewisham Borough CCTV scheme, and also to say what factors determined whether it could be successful. Respondents were allowed to name as many features as they wished. The factors regarded as important by officers, and the number of officers who mentioned each, are listed in Table 5 below.

By far the most important factors in the view of the surveyed officers are the professionalism of the CCTV control staff (mentioned by 38% of officers) and the quality of the relationship and communications between them and the police (34%). Issues around training of the operators and the police were mentioned several times, but the technical quality of the CCTV equipment was less likely to be mentioned as an important factor.

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[9] ANOVA test, $F = 4.85$, $p < 0.05$

Table 5. Factors considered important in determining whether Lewisham CCTV works

Factor	Number of officers mentioning it
Professional staff	25
Good relationship/communications	22
Equipment and image quality	7
Coverage	5
Training of operators	5
Training of police	3
Maintenance of equipment	2
Staffing level	2
Publicity	2
Good lighting	1
Police in control room	1
Protocol for viewing	1
Weather	1
Covertness	1
CAD room	1
Less reliance on the cameras	1

The views of officers on the strengths and weaknesses of the Lewisham CCTV system are tabulated below. Some of the aspects mentioned as strengths and weaknesses equate to the list of factors regarded as important in determining whether CCTV works. Those aspects appear first in the table.

The staff in the CCTV control room were identified as a weakness more often by the survey respondents than as a strength, but officers in the focus group were more positive, the consensus being that the control room staff were 'pretty good'. On other important measures, such as the quality of evidence and the siting and coverage of the cameras, more officers saw the scheme as strong rather than weak. On the relationship between the control room and the police and the quality of the equipment and images, officers identified the scheme as strong and weak in about equal numbers. Focus group officers reported that some aspects of the scheme had improved recently. One said that service had improved since two-way radio communication was installed between officers and the control room, while another said:

> *The pictures are great – night-time not bad (apart from headlights). The technical aspects are good, especially over the past six months.*

The three most frequently-mentioned strengths are qualities that could be attributed to any CCTV scheme, namely that it collects evidence, deters crime and reduces fear. However, seven officers cited reduction of fear as a weakness, explaining that over-reliance on the cameras might breed complacency.

Several officers mentioned that the ability of the control room staff to allow quick viewing of images was a problem. Four said that using images was time-consuming, and this complaint was amplified by opinions from the focus group discussion:

The problem I've encountered is the seizing of the CCTV tape. I've wanted to view the tape and you can't view it on the night when you have someone in custody. Would at least like to view it on the night, especially when it comes to note-writing.

Have to book at viewing so it's not immediate. Access to footage is a problem.

Have had to sign six times for one tape, which is very thorough (maybe too thorough).

Table 6. Strengths and weaknesses of Lewisham CCTV

	Number of officers mentioning factor	
	as strength	**as weakness**
Staff in the control room	5	13
Relationship between control room and police	4	3
Equipment and image quality	4	5
Coverage and siting of cameras	13	9
Extent of monitoring	6	6
Ability to collect good evidence	22	3
Deterring crime	18	1
Reducing fear	18	7
Identifying offenders and suspects	8	0
Detecting crime	6	0
Preventing crime	5	0
Intelligence	4	0
Protection of police officers	4	1
Locating incidents	2	0
Proactivity	2	0
Assisting investigations	2	0
Identifying witnesses	1	0
Permanence	1	0
Support to CAD room	1	0
Access by police to tapes	1	4
Reliability of equipment	0	3
Time-consuming	0	4
Displacement	0	2
Police knowledge and use of CCTV	0	1
Assists defence	0	1
Solving crime	0	1

4.6.2 Officers views of CCTV's effect on achievement of specific outcomes

Officers responding to the survey were invited to estimate the effects of CCTV on the incidence of particular types of offending behaviour, and on the ability of the scheme to detect and alert the police to it. The behaviours included in the question were among those on which CCTV is expected to have an impact, such as anti-social behaviour, street robbery, assaults and on-street drug dealing. Officers' views on the main effect of CCTV on the incidence of offending behaviour is tabulated below. 'Don't knows' and failures to respond are not included in the table.

On all crimes, the predominant view is that CCTV reduces incidence, although the majority was small in the cases of shoplifting and assault, where many officers considered that CCTV had no effect. Officers were most enthusiastic about CCTV's effect on the incidence of street robbery (87% of officers thought that CCTV reduced the number of offences), car crime (77%), on-street drug dealing (76%) and shop burglary (74%).

On drug dealing, street robbery and car crime there were several officers who thought that the main effect of CCTV would be to displace offending, but the view was not as widespread as was found in the general question on displacement at the beginning of the survey (see Table 2 above). The focus group respondents indicated a possible reason for this: the extent of CCTV coverage in Lewisham. Several officers in the discussion noted that there were few places in the Borough's town centres where offenders could escape the possibility of CCTV surveillance, and a popular view was that displacement of crime against fixed targets such as shops could be eradicated by the installation of yet more cameras.

Table 7. Police views of CCTV's impact on the incidence of crime

Crime	Reduces it a lot		Reduces it a little		No effect		Increases it		Moves it elsewhere		Total	
Anti-social behaviour	8	14%	35	59%	14	24%	0	0%	2	3%	59	100%
Burglary of shops	12	20%	32	54%	12	20%	0	0%	3	5%	59	100%
Street robbery	10	17%	40	69%	2	3%	0	0%	6	10%	58	100%
Shoplifting	7	12%	24	41%	27	46%	0	0%	1	2%	59	100%
Car crime	9	16%	34	61%	7	13%	0	0%	6	11%	56	100%
On-street drug dealing	10	17%	35	59%	5	8%	0	0%	9	15%	59	100%
Assaults	3	5%	30	52%	24	41%	0	0%	1	2%	58	100%
Commercial robbery	11	20%	28	50%	16	29%	0	0%	1	2%	56	100%

Table 8 shows how well officers believe Lewisham's CCTV performs on detecting and alerting the police to incidents.

Table 8. How good is Lewisham's CCTV at detecting and alerting the police to crime?

Crime	Very good		Quite good		OK		Not very good		Poor		Total	
Anti-social behaviour	14	23%	24	40%	15	25%	7	12%	0	0%	60	100%
Burglary of shops	6	11%	9	17%	21	39%	12	22%	6	11%	54	100%
Street robbery	6	11%	17	30%	19	33%	12	21%	3	5%	57	100%
Shoplifting	5	9%	14	25%	17	31%	14	25%	5	9%	55	100%
Car crime	4	7%	15	28%	17	31%	16	30%	2	4%	54	100%
On-street drug dealing	6	11%	21	38%	10	18%	12	22%	6	11%	55	100%
Assaults	11	20%	13	23%	21	38%	8	14%	3	5%	56	100%
Commercial robbery	8	16%	8	16%	17	35%	10	20%	6	12%	49	100%

Officers rate the Borough's CCTV particularly highly for its ability to detect and alert the police to instances of anti-social behaviour. A clear majority (63%) think that the cameras are good at reporting such behaviour to the police, and this view is supported by the number of public disorder incidents logged in the CCTV incident reports and noted during observation in the CCTV control room.

Apart from anti-social behaviour there was no other offence on which a majority of officers felt that the control room was good at detecting and alerting the police. However, those officers who had visited one of the CCTV control rooms rated the scheme better overall at detecting crime than did those who had not. Although the difference in scores was not statistically significant overall, it was significant for two specific types of behaviour: anti-social behaviour and shoplifting.[10] The difference was still more marked in respect of those officers who had seen the benefit of CCTV through using images in interviews or in court cases. These officers rated the detective abilities of the cameras significantly higher across the whole range of offending behaviours,[11] and the difference was particularly large in respect of burglary of shops,[12] street robbery,[13] drug dealing,[14] assault[15] and commercial robbery.[16]

Officers were asked to rate the CCTV scheme on its ability to achieve certain desirable outcomes, some of which are of specific use to the police (such as identifying offenders and witnesses) and others of more general benefit (such as making people feel safer and encouraging business activity). The results are presented in Table 9.

[10] ANOVA test anti-social behaviour $F = 4.45$ $p < 0.05$, shoplifting $F = 4.22$ $p < 0.05$
[11] ANOVA test for total effectiveness score $F = 8.33$ $p < 0.05$
[12] ANOVA test $F = 12.89$ $p < 0.05$
[13] ANOVA test $F = 6.85$ $p < 0.05$
[14] ANOVA test $F = 8.25$ $p < 0.05$
[15] ANOVA test $F = 4.96$ $p < 0.05$
[16] ANOVA test $F = 4.14$ $p < 0.05$

Table 9. How good is Lewisham's CCTV at achieving general aims?

Aim	Very good		Quite good		OK		Not very good		Poor		Total	
Identifying offenders	6	11%	20	36%	22	39%	4	7%	4	7%	56	100%
Solving crimes	2	4%	10	20%	25	49%	9	18%	5	10%	51	100%
Increasing guilty pleas	3	7%	18	44%	13	32%	5	12%	2	5%	41	100%
Identifying witnesses	2	4%	11	23%	16	34%	12	26%	6	13%	47	100%
Identifying evidence	4	8%	15	30%	27	54%	1	2%	3	6%	50	100%
Preventing crime	6	11%	18	32%	26	46%	4	7%	2	4%	56	100%
Deterring offenders	7	13%	19	35%	20	37%	6	11%	2	4%	54	100%
Making people feel safer	11	21%	26	50%	13	25%	1	2%	1	2%	52	100%
Encouraging business activity	7	17%	14	33%	17	40%	3	7%	1	2%	42	100%
Encouraging people to use space covered by the cameras more	4	9%	17	40%	18	42%	1	2%	3	7%	43	100%

A clear majority of officers (71%) felt that the Lewisham scheme is good or very good at making people feel safer. However only half felt the scheme was good or very good at encouraging people to use public space more and encouraging business activity.

Of the police-related objectives, the scheme's ability to deter offenders, identify those who do offend and increase guilty pleas was recognised as good or very good by around half of officers. However, officers were more sceptical of CCTV's ability to identify evidence and witnesses, to prevent crimes or to solve them. Those officers who had seen the benefit of the Lewisham scheme through using images in interviews and court cases were more positive about its ability to deter and prevent crime, and to identify witnesses and evidence, and the differences were statistically significant.[17]

[17] ANOVA test for identifying witnesses $F = 4.26\ p < 0.05$, for identifying evidence $F = 10,30\ p < 0.05$, for deterring offenders $F = 4.46\ p < .05$ and for preventing crime $F = 4.00\ p < 0.05$

4.6.3 Officers' opinions on the quality of the scheme

Finally, officers were asked to rate Lewisham's CCTV on a number of attributes ranging from the quality of the control room operators and management to the relationship between the control room and the police. The results are tabulated below.

Table 10. Officers' ratings of the CCTV scheme's specific attributes

Attribute	Very good		Quite good		OK		Not very good		Poor		Total	
Quality of CCTV operators	10	19%	24	46%	12	23%	5	10%	1	2%	52	100%
Overall quality of the control room management	14	28%	22	44%	11	22%	3	6%	0	0%	50	100%
Quality of the images	14	25%	17	31%	15	27%	6	11%	3	5%	55	100%
Ready availability of tapes to the police	22	40%	16	29%	9	16%	6	11%	2	4%	55	100%
Careful management of evidence by the control room	16	33%	14	29%	15	31%	3	6%	0	0%	48%	100%
Reliability of the CCTV equipment	10	18%	18	35%	18	35%	3	6%	2	4%	51	100%
Ability of the operators to interpret what the cameras tell them	7	14%	23	46%	12	24%	6	12%	2	4%	50	100%
The siting of the cameras	5	9%	30	53%	15	26%	7	12%	0	0%	57	100%
The relationship between the CCTV control room and the police	17	33%	21	41%	10	20%	3	6%	0	0%	51	100%

It is clear that officers have a favourable general impression of the quality of the Lewisham scheme in all the respects measured. Moreover, officers are particularly impressed in the areas that they identified as most important in determining whether CCTV is effective: the quality of the control room staff, and the relationship between the control room and the police (see Table 5 above). The scheme also scores very well on the ease with which officers can get access to images.

On all the attributes measured a majority of officers rate the scheme as good or very good. However, in some areas the survey reveals pockets of dissent. For example while six out of ten officers are impressed with the ability of control room staff to interpret what they see on their monitors, several officers think the operators are not very good or poor at this. The focus group provided examples of good and bad experiences by individual officers. There was a

general view that often officers 'can be sent to play fights which don't actually require police attention'. On the other hand one officer related an operation that was initiated and assisted by control room operators:

> *Six months ago got called out to a drug dealer. [The control room] gave a full description and where he is – told us that he was putting hand down trousers. When searching him in the van and knew from CCTV where the drugs were hidden.*

Other dissenting views were expressed by 16% of respondents, who were unimpressed with the quality of the CCTV images and by 15% who criticised the availability of images for viewing.

Officers who had visited either CCTV control room rated the scheme more highly across all attributes than those who had not, and the difference was statistically significant.[18] The average approval ratings of officers who had seen a control room compared with those who had not are listed in Table 11 below. A mean rating of 3.0 on an attribute indicates that on balance respondents rate the scheme' performance as 'OK'. As can be seen, officers who had visited one of the control rooms rates the scheme at least 3.7 on all attributes. Scores from officers who had not been in a control room were lower in every case, but the most striking difference lies in the scores for the ability of operators to interpret what the cameras tell them. On this attribute officers who had not seen a control room rated the operators substantially below OK, whereas those who had visited rated them substantially better than OK. Other attributes where ratings from officers who had seen a control room were significantly better than those from officers who had not were quality of the CCTV operators and management, and the careful management of evidence.

[18] ANOVA test on all attributes $F = 4.28$ $p < 0.05$

Table 11. Mean approval ratings of officers who have visited a CCTV control room and those who have not

Attribute	Seen CCTV room	Not seen CCTV room	Significant difference?
Quality of CCTV operators	3.0	3.8	Yes[19]
Overall quality of control room management	3.2	4.1	Yes[20]
Quality of the images	3.6	3.7	No
Ready availability of tapes to the police	3.3	4.0	No
Careful management of evidence by the control room	3.2	4.0	Yes[21]
Reliability of the CCTV equipment	3.3	3.7	No
Ability of the operators to interpret what the cameras tell them	2.5	3.7	Yes[22]
The siting of the cameras	3.1	3.7	No
Relationship between the CCTV control room and the police	3.5	4.1	No

4.7 Conclusions

The low response rate to the questionnaire requires the exercise of caution when drawing conclusions from the survey. However it is encouraging that the results in this section of the report are largely consistent with the findings from analysis of the CCTV control room incident logs, observation of the control room, interviews with stakeholders and analysis of the crime data. The survey findings are also supported and amplified by the focus group discussion.

Officers responding to the survey reflected a mix of all ranks from Chief Inspector down, of long and short service both in the police service and in Lewisham Borough, of age and of gender. The analysis focused on whether there were significant differences in the attitudes of officers in these different categories but none were found.

Officers were generally supportive of town centre CCTV as a concept. Like the general public, officers rejected the notion that CCTV is an unacceptable invasion of privacy and that it is too expensive. There was some support for the view that cameras just displace crime, but this was seen by some as an argument for more cameras.

Officers displayed a good level of knowledge of the CCTV scheme in Lewisham. Eight out of ten survey respondents had visited one or other of the CCTV control rooms in the Borough and many reported having visited on numerous occasions. Most of these visits were for operational reasons rather than just for training or familiarisation. A clear majority of officers had experienced being directed to an incident by CCTV operators, had made contact with a control room operationally, and had viewed CCTV footage. Almost half of the respondents had experience of using CCTV images in interviews with suspects and in prosecutions. Most

[19] ANONVA test $F = 4.63$ $p < 0.05$
[20] ANOVA test $F = 4.61$ $p < 0.05$
[21] ANOVA test $F = 4.58$ $p < 0.05$
[22] ANOVA test $F = 9.19$ $p < 0.05$

of those having used images in these ways said that they had an effect on the outcome of the interview or court case. No claim can be made, however, that these levels of familiarity with and usage of the scheme are a reflection of those officers in the Borough who did not respond to the survey.

Officers who had visited one of the Borough's control rooms or seen an effect from using camera images in an interview or a prosecution were not significantly more approving of CCTV as a concept than those who had not. These officers were, however, more positive about specific aspects of the Lewisham scheme and it is possible that these positive feelings have resulted from their heightened level of exposure to it rather than vice versa. Particularly striking was the fact that officers who had used images successfully in interviews and in court rated the detective ability of the CCTV cameras significantly higher for a range of offences that those who had not. It is clearly desirable that police officers should base their opinions of CCTV on such information, which could be imparted in the training of new recruits and refresher training of experienced officers.

Officers identified the professionalism of the CCTV operators and the relationship and communication between them and the police as by far the most important factors in determining where the scheme was successful. Few officers identified the operators and the relationship between themselves and the police as particular strengths of the Borough CCTV scheme, preferring instead to cite other features such as its ability to gather evidence, deter offenders and reassure the public. However when asked to rate the quality of the control staff and management, and the closeness of the relationship, officers rated them all as more than acceptable. The level of satisfaction in these respects was significantly higher among those officers that had seen a control room in action.

The survey measured officers' views of CCTV's ability to impact on the incidence of crime, and to achieve a range of other aims and objectives. In general the officers were impressed by the scheme's capabilities and the way in which it is managed and operated. They were selective in their praise, however. For example, CCTV was thought to be more effective at reducing crime against fixed targets (such as commercial robbery and burglary of shops) than against mobile targets (such as street robbery). CCTV was considered good at alerting the police to public disorder, and this is borne out by the prevalence of such incidents in the control room logs. It was considered much less effective at detecting covert offences such as burglary. Officers see the cameras as good at reassuring people and allaying fear, but are sceptical whether it actually changes behaviour by encouraging business activity and persuading the public to make greater use of space.

The findings suggest that the quality of the managers and operators within the control room has influenced those police officers that have met them and seen them at work to increase their expectations of what CCTV can achieve.

Section Five:
Crime Trends Analysis

5.1 Introduction

The aim of this part of the evaluation is to investigate the impact of CCTV on recorded crime.

This will not be a full assessment of the impact of the systems on crime and disorder, as many of the incidents that the operators respond to would not have been 'crimed'. For example, most of the nuisance and disturbance which comprise the most common category of incident would have been unlikely to result in a crime being recorded. However, it does provide an objective measure of the more serious incidents to a consistent standard.

There are a number of challenges to an effective evaluation of recorded crime:

- Establishing whether changes in crime are related to CCTV or other factors.
- Interpreting the trend. A positive impact may result in an increase in recorded crime. For example, fights are the second most common incident recorded by the control room. Although violence may have become less common in the area, the number of crimes of violence recorded may go up now that the CCTV is there to bring the incident to police attention and identify perpetrators.
- Accounting for integration. CCTV integrates with other initiatives such as radio links. The real impact of CCTV may be felt not when the CCTV goes live, but when these other initiatives combine with it.
- Accounting for displacement. A reduction in crime reported in the area of the CCTV may not represent a reduction in the overall level of crime committed, merely a change of location by the perpetrators away from the immediate area of coverage.

To try to meet those challenges the evaluation has the following features:

- It covers a significant area outside the CCTV coverage so that a variety of 'control' areas are available.
- It investigates different types of crime independently as well as in aggregate.
- It considers the trend at all key stages in the development of CCTV monitoring in the area, and significantly beyond the installation period.
- It considers areas covered, areas immediately surrounding the coverage areas, and nearby areas.

5.2 Data sources

The basic data for the evaluation was extracted for the project by the Borough. It consists of over 125,000 reported incidents taken from the Metropolitan Police Service Crime Recording Information System (CRIS), covering all types of crime taking place from January 1996 to the end of April 2001. The summary of this is shown in Table 1.

Table 1. Summary of crimes in the evaluation database

	Year of 'date from or on'					
Broad group	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
Not recorded					24	37
Assault	932	2,054	2,033	3,842	3,735	1,036
Burglary – other	841	1,132	1,247	1,219	939	232
Burglary – residential	2,379	3,262	2,999	3,046	2,896	723
Criminal damage	772	1,508	1,577	2,595	2,412	619
Deception	371	324	862	1,031	775	143
Drugs	411	679	923	719	574	142
Indecency	84	73	65	64	53	14
Murder	4	2	16	12	17	2
Non-crime book	383	969	977	1,439	1,296	370
Other	12	240	579	975	957	239
Other beat crime	51	81	80	133	155	38
Other major crime	475	516	645	580	531	170
Robbery	840	1,044	855	1,275	1,586	478
Theft – other	1,299	2,143	2,620	4,380	4,150	985
Theft – shoplifting	287	590	611	1,251	1,062	273
Threats	379	502	750	988	1,119	251
Vehicle	4,069	6,368	6,991	7,016	6,554	1,537
Totals	**13,589**	**21,487**	**23,830**	**30,565**	**28,835**	**7,289**

Grand total	**125,595**

Initial screening showed that 162 of these incidents were duplicates; these were excluded, leaving 125,433 incidents in the analysis.

Screening also established doubts about the comprehensiveness of record-collecting between January and June 1996 – the number of incidents in these months was inexplicably low. It was decided that this data could not be relied upon and it was excluded. There are also sudden rises in some offences in the Lewisham and Deptford area that cannot easily be matched to a

particular generator, and the crime rates are surprisingly low prior to the rise. This, and the incidents across all areas that are clearly missing from the 1996 data, could both be the result of a problem with the source data. The data consists of incidents recorded and dealt with in the Lewisham area The principal postcodes included are shown in Table 2.

Table 2. Postcodes related to incidents in the evaluation database

Postcode district	Number of crimes recorded in the five-year period
SE6	25,268
SE13	19,389
SE23	14,044
SE26	13,332
SE14	11,231
SE8	10,080
SE4	9,724
SE12	8,518
BR1	7,557
SE3	2,262
Not recorded	1,090
Other[23]	2,938
Total	**125,433**

Separate data sets were also provided for the study to identify each incident that took place within 30m and 100m of camera locations. These were then integrated with the main data set to identify three discrete groups of incidents. Those that happened within 30m of a camera, those within the 'doughnut' between 30m and 100m of a camera, and those in other areas.

5.3 Camera Installation dates

The time scale for the introduction of cameras is relatively complex. The cameras were installed at different times in the separate locations, and the previous CCTV Manager's recollection of when work started on the system is that it was considerably before the cameras went live. Yet the deterrent effect is very likely to have begun as the cameras became visible, and not only when they became fully operational. Details are shown in Table 3.

[23] Among the incidents in the 'other' group of postcode districts were some that were outside the Lewisham area. It was not possible within the time available to this project to investigate whether any of them were not dealt with by Lewisham – there is no negative impact to the area away from the cameras as having a wider remit.

Table 3. Camera installation timetable

Area	Work commenced (approx.)	Connected	Additional cameras connected
Deptford	November 1995	December 1995	February 1998
New Cross	July 1996	October 1996	February 1998
Lewisham	February 1997	November 1997	
Catford	February 1997	November 1997	

It is immediately clear that the evaluation crime data provided will not provide 'before and after' data for the initial Deptford and New Cross installations, which were either in place or under construction at the time the first data set starts.

5.4 Sphere of influence of cameras

The area on which the cameras would have an immediate impact was decided to be 30m. This distance was adopted as that over which the operators could be expected to notice incidents occurring (though on maximum zoom the cameras could follow incidents much further than this). The area between 30 and 100m from the cameras was decided upon as the area immediately outside the area the cameras surveyed. It was thought that this area might benefit from proximity to the cameras, or represent the first zone to which crime might be displaced by the cameras.

The incidents within these zones were selected by mapping software as being simply within the given radius – no allowances were made for 'blind spots' caused by buildings or other features of the environment.

5.5 The analysis

There are two parts to the analysis. The first part plots the trends in crime to try and determine the impact of CCTV on crime overall in each of the areas, on different types of crime, and on crimes grouped by how visible they are to CCTV. Graphs are used in preference to tables of figures at this point because it is easier to see the relationship between the changes and the time the cameras were introduced.

The second part of the analysis aims to investigate the effect of cameras in more detail for those crimes where the trend graphs suggest there was an impact. The objectives are to establish a 'predicted' level of crime from the experience of non-CCTV areas, so that the change that is different from the other areas can be separated out, and then to investigate whether the apparent difference is statistically significant, and therefore what savings (if any) the CCTV could be said to have made.

5.6 Mechanics of the crime reduction effect

Essentially CCTV can affect crime figures in three ways:

Uninformed deterrence The potential offender sees (or hears about) the cameras, feels watched, avoids opportunities to offend, or chooses not to commit offences in this area. The crime rate is affected as soon as the threat is perceived – the impact is felt from the time of initial publicity, throughout installation, and after the system is fully live and operational.

Educated deterrence Evidence of CCTV working shows potential offenders that there is a credible risk (for example, because they see the police response or are themselves arrested). The impact on the crime rate is more gradual, and only starts after the scheme is fully operational.

Removal by detection CCTV increases the detection rate, and some offenders are thus removed by custodial sentences. The impact will be take many months to take effect.

The analysis of the control room records suggest that the first is the effect most likely to be operating. Therefore we should look for a change in trends once the initiative is being implemented – and not necessarily only after it is up and running.

5.7 Overall crime trends

To review the trends in each area, the moving annual total of incidents was plotted. Rather than showing a total for each month, the graphs (Charts 1–3 below) show the annual total up to that month. This removes seasonal variations and smoothes the graph out, providing a trend that is easier to follow. These first charts investigate the trend in an aggregate of all crime types in each of the camera influence areas – crimes committed within 30m of a camera, between 30m and 100m of a camera, and in all other areas. Because 'other areas' accounts for far greater overall numbers of crimes, to get the lines on the same graph the trend for all other areas is shown against the scale on the right of the graph, while the scale for the 30m and 30–100m areas are measured against the scale on the left-hand side of the graph.

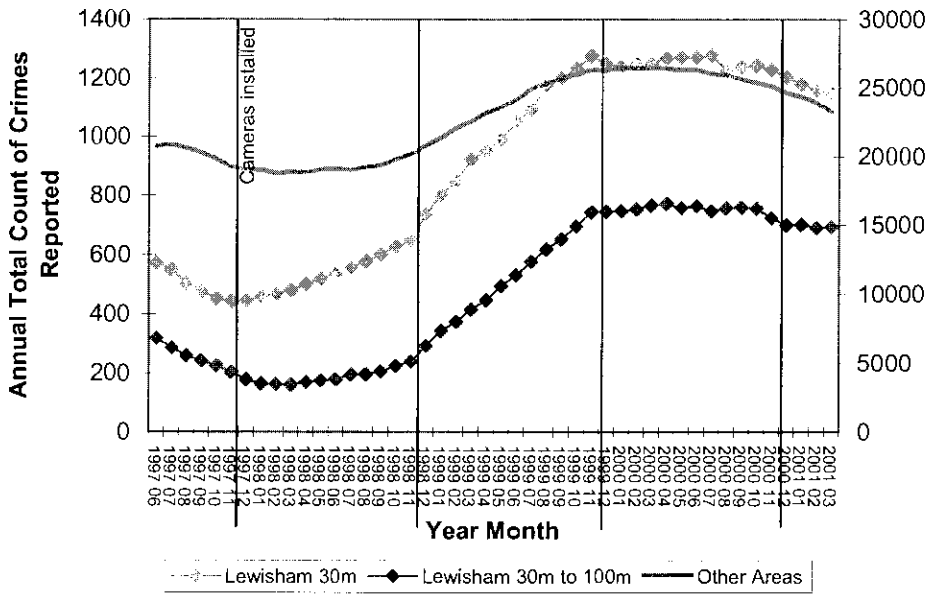
It is perhaps naive to imagine that CCTV would have an impact on the aggregation of all crime in the areas they cover. Some crimes will be completely invisible to CCTV operators. However, there may still be an impact. News coverage of the contribution of CCTV to many well publicised investigations could give the impression that any serious premeditated crime is more risky near the cameras where comings and goings are recorded. Also, looking at the overall picture gives an overall context for the crime trend in different areas.

In the Catford area a positive change in overall crime levels does seem to be associated with the camera coverage areas.

5.7.1 Lewisham

The MAT trend in all crime in Lewisham is shown in Chart 1, and does not immediately tell of a positive impact from the cameras.

Chart one: All Crime Trend Lewisham by Camera Influence Area

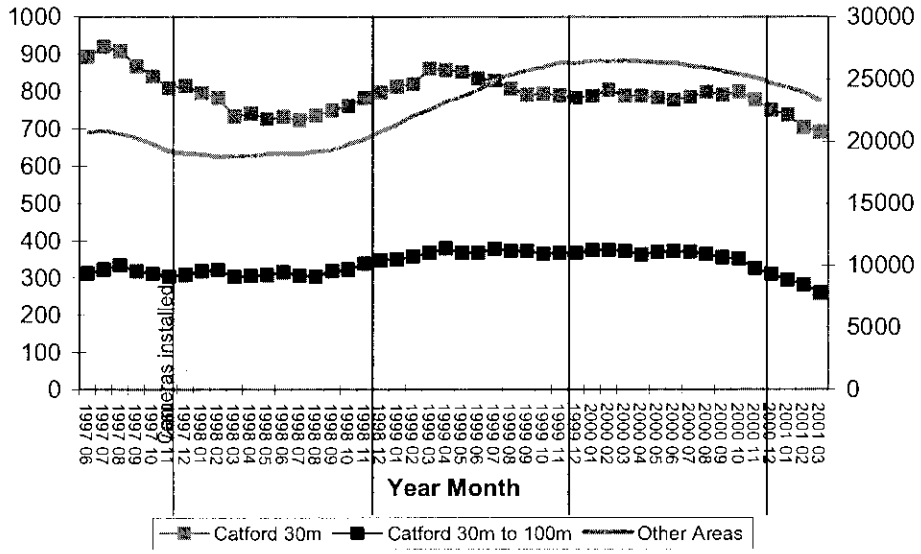


In both 30m and surrounding 30–100m areas the trend is downward through the period of installation of the cameras, but not to any greater extent than the overall trend for all areas outside CCTV coverage, and after the 'live' date growth in crime in the area covered by cameras increases – and at a greater rate than that for areas not covered by cameras.

5.7.2 Catford

By contrast, the trend in Catford (Chart 2 below) suggests that the cameras have had an influence on overall crime levels. The trend in crime in Catford reduces as the cameras are installed, and then continues at a lower level throughout the subsequent year; despite some periods when the trend is upwards, at the end of three years recorded crime is still lower than it was before camera installation started, and this trend is an improvement over areas not covered by CCTV. It is also an improvement against the surrounding 30–100m areas, but without any marked worsening in this area that would indicate a local displacement effect.

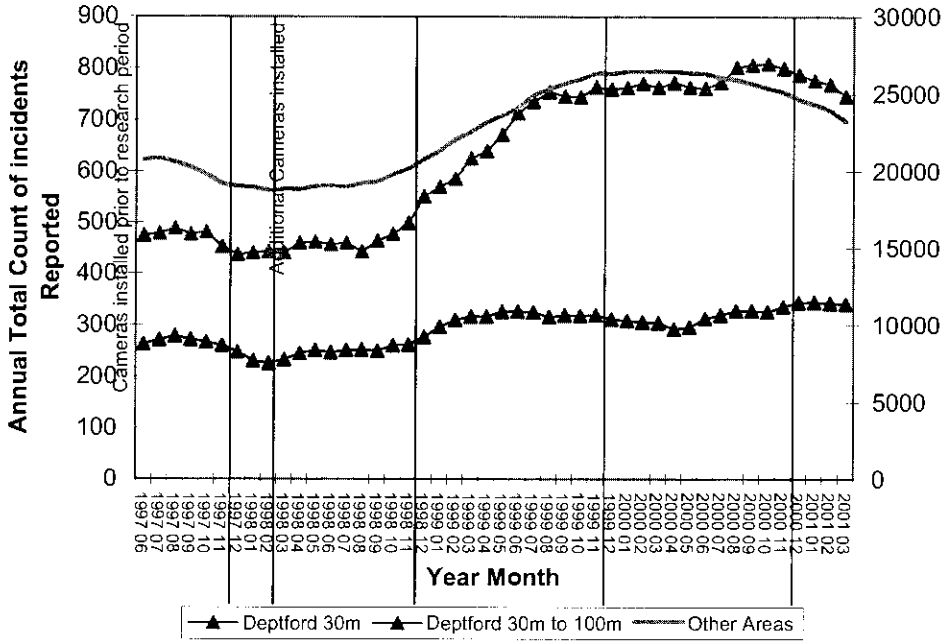
Chart two: All Crime Trend Catford By Camera Influence Areas



5.7.3 Deptford (and New Cross)

In Deptford the majority of the cameras were installed prior to the period for which the crime data could be provided. However, the period for which we do have data gives no support to the cameras having had an impact, as Chart 3 shows. In the first year the trend is downward, but only at the same rate as that for all other areas outside the influence of cameras, and the trend seems uninfluenced by the additional cameras that went live in February 1998. Shortly after that the trend worsens considerably – but only in the immediate vicinity of the cameras – suggesting either that their influence is increasing the number of crimes recorded, or that some other change in the same area as the cameras is doing so.

Chart 3: Trend All Crime Deptford by Camera Influence Area



Further analysis shows that assaults, criminal damage, and to a lesser extent thefts rose very dramatically during 1999. This suggests that there was some other major crime generator introduced into the area at that time – a new night club development, for example.

Given that there is no 'before' period for comparisons to be made, and given the presence of this unexplained jump in the kind of crime CCTV might be expected to target, there seems no benefit in analysing the crime trends in Deptford further as part of this study.

5.8 Trends in crime types

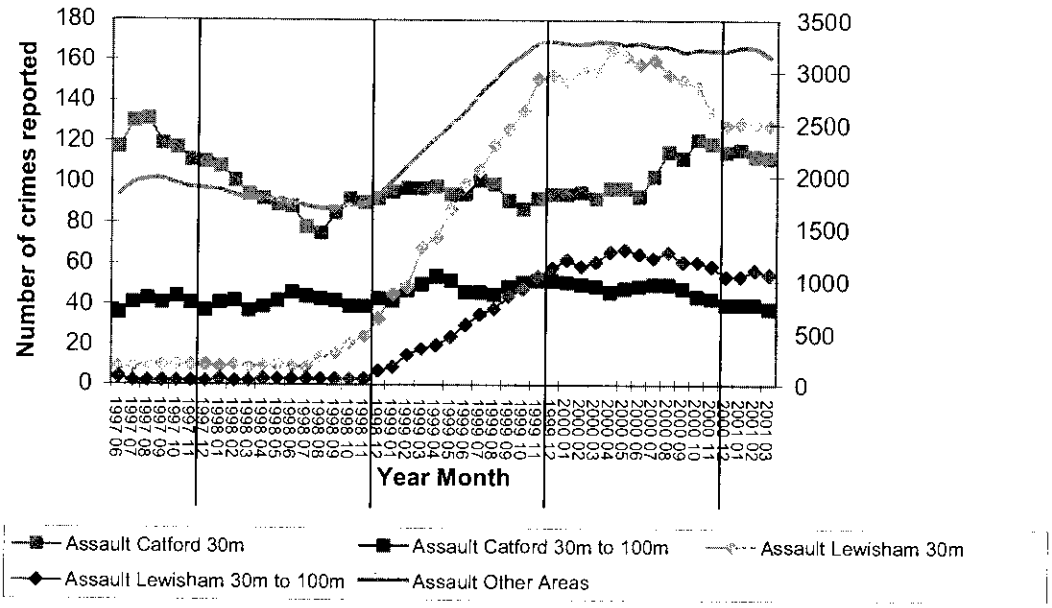
The trend graphs by crime types are also based on 'moving annual totals' – the total in the year to that month – and again the totals for 'other areas,' those outside camera influence, are plotted against the right-hand scale, while the 30m and 30–100m influence areas are plotted against the left-hand scale. The Lewisham and Catford areas are plotted on one graph so that comparisons between different camera areas can be seen, as well as comparisons between those areas which are under CCTV influence and those which are not.

A yellow highlight on all the charts shows the three months prior to the live date for the Catford and Lewisham cameras.

5.8.1 Assaults

Assaults are one of the crime types on which CCTV would be expected to have an impact. Chart 4 shows the trend in assaults, displaying marked contrasts in the two areas.

Chart 4: Trend in Assaults By Camera Influence Area



The cameras in Catford seem to have made a difference. The trend falls while the cameras are installed, and continues to fall for most of the subsequent year. Then, though the trend increases a little, it does not rise as much as was the trend in the other areas not covered by cameras. In the Catford 'buffer zone' between 30 and 100m from the cameras the trend is fairly constant – not following the overall increase in areas not covered by cameras. This suggests that the buffer zone, whilst not benefiting greatly from the cameras has certainly not been an area to which assaults have been displaced.

The situation in Lewisham is much less clear. Assaults were rare – less than ten a year – up until Christmas 1998. Incidents then rose to over 160 per year. The 30–100m area was

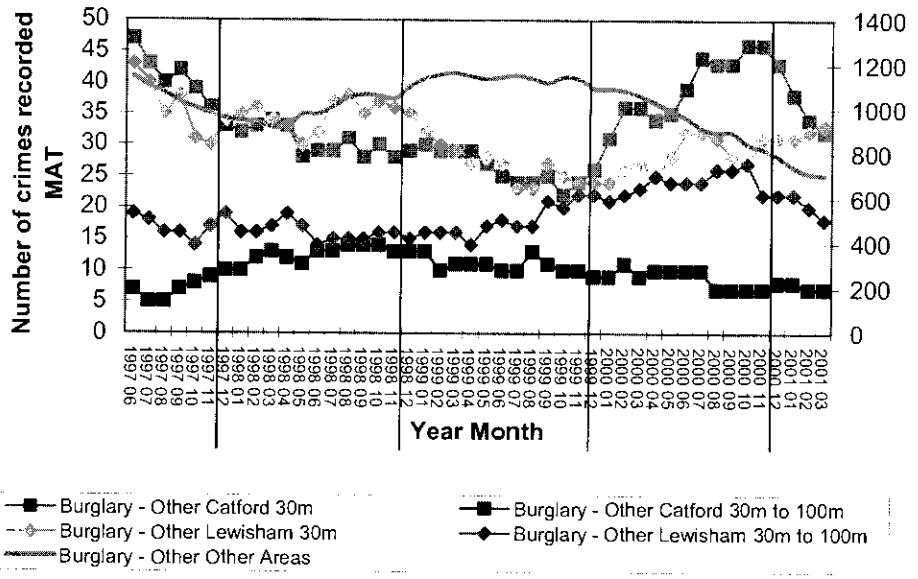
affected as well. Whatever change caused this dramatic rise does not seem to have been associated with the cameras.

5.8.2 Non-residential burglary

Burglary is not a crime that came to the attention of CCTV controllers. However, the overage of city centres by CCTV may still be seen by potential burglars as increasing their risk when contemplating attacks on city centre shops. There is some evidence that this is in fact the case.

Among the areas around cameras the non-residential burglary problem is most serious in Catford. For two of the years the trend graph (Chart 5) supports the view that CCTV improved the situation in this area, showing a trend reducing at a more pronounced rate than in the other non-CCTV areas after the introduction of the system, but the figures for 2000 show something of a reversal – an increase not experienced elsewhere. However, the trend in the Catford 30–100m areas rose as the cameras were installed, and as the trend in the 30m areas fell. When the burglaries in the 30m areas increased in 2000 the trend in the 30–100m areas fell (though not to the same extent). The implication is that there was some displacement of burglars to the shops further away from the cameras.

Chart 5: Trend In Non-Res Burglary by Camera Influence Area



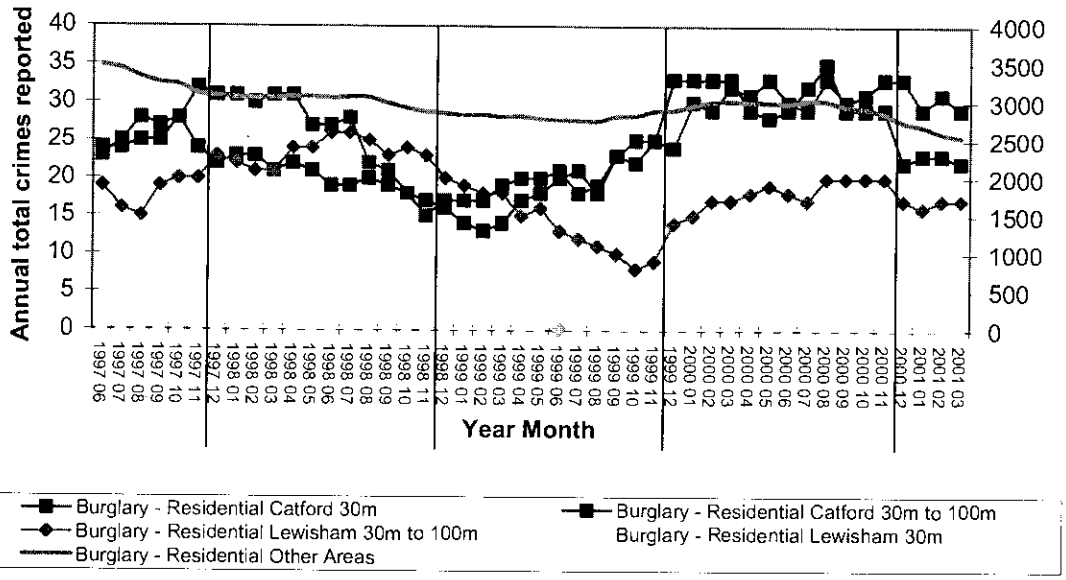
In Lewisham the story is similar, but the evidence is not pronounced enough to claim a positive influence from CCTV. In the 30m areas the trend is in line with non-camera areas until 1999, the second year after cameras were installed, when it falls, while the rate in other areas continues to rise. Then in the next year the improvement is reversed.

5.8.3 Residential burglary

CCTV is less associated with domestic burglary than with attacks on town centre shops and businesses. (A burglar with experience of CCTV control rooms might realise that CCTV is less of a problem when attacking domestic properties, because control rooms try to exclude private homes from surveillance.)

However as can be seen in Chart 6, which shows the trend in domestic burglary over the study period, there is some support for the view that introducing CCTV improved the domestic burglary rate. In both Lewisham and Catford the trend is downward following the introduction of the cameras. In Catford the trend within the 30m areas was rising before cameras were introduced and then fell. In Lewisham the rate in the 30m band was in line with the trend set by areas away from cameras but falls faster after CCTV went live. Unfortunately, the improvements in 1998 were reversed in the Catford areas.

Chart 6: Trend in Residential Burglary By Camera Influence Area



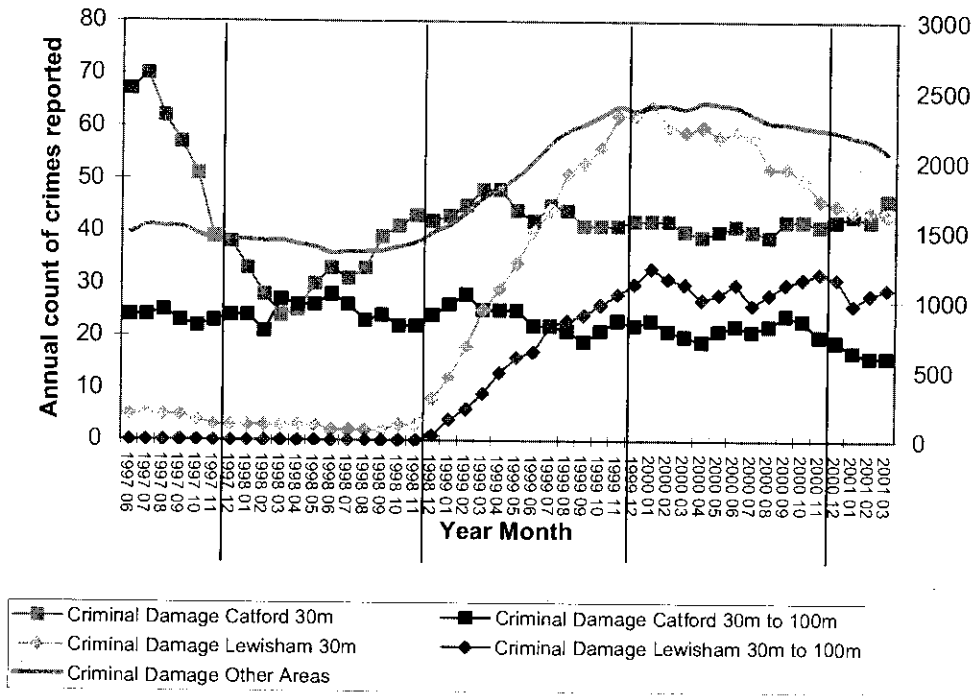
5.8.4 Criminal damage

Criminal damage is the type of anti-social behaviour that CCTV is intended to prevent. Chart 7 plots the trend in this offence.

In Catford the number of criminal damage incidents reported declines substantially from August 1997, and though it does increase again after six months, it remains well below the July 1997 level. The improvement does not entirely match the start of CCTV monitoring – the downward trend starts four months before the cameras went live. However, the camera installation project started in February, so the decline was well into the period during which the CCTV was being installed. By August it is likely that the camera poles were put in place, even if the cameras on top of them were not live, and a deterrent effect may be expected from this. In the 30–100m areas the trend remains little changed – suggesting no improvement, but no displacement either.

In Lewisham, as was found with assaults, there were virtually no incidents recorded before Christmas 1998, and there is a substantial increase. It does not seem to be associated in any way with the CCTV coverage, and affects both the 30m and 30–100m areas.

Chart 7: Trend in Criminal Damage By Camera Influence Area



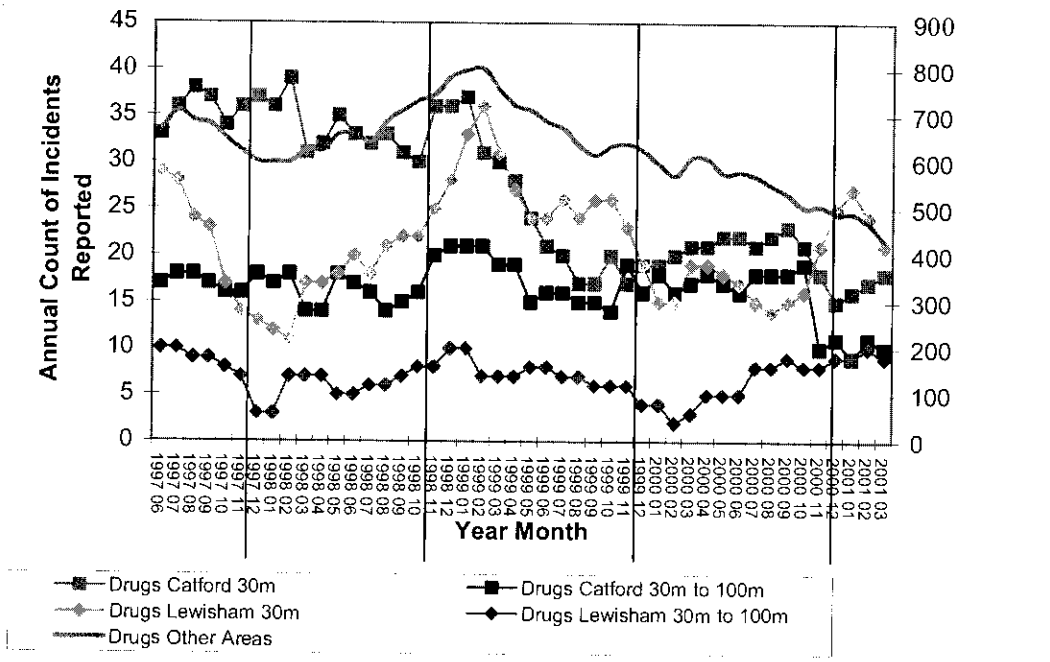
5.8.5 Drugs offences

The incident data from the CCTV control room suggests that drugs offences are a category of street crimes that CCTV is only rarely involved in combating. Chart 8, which plots the trend in these offences, does little to contradict this view.

The 30m areas in Catford do show a decline greater than the trend in non-camera areas, but the greatest improvement comes over a year after installation. This could be 'educated

deterrence', except that the control room data shows insufficient collaboration on drugs offence targeting to warrant such an effect. In the Lewisham 30m areas, the trend-line falls from before the time cameras were introduced until a year or so afterwards, and then rises again. In this it follows the pattern in other areas, not giving any evidence of being affected by the introduction of the cameras.

Chart 8: Trend in Drugs Offences By Camera Influence Area



5.8.6 Robbery

Chart 9 shows the trend in robberies. As there is a decline in offences, in both the Lewisham and Catford 30m zones, that coincides broadly with the cameras being installed, it is tempting to attribute this reduction to CCTV. However, the trend is very similar to the trend in non-camera areas. In 2000 a difference between Lewisham and Catford is noticeable. The trend for robberies within 30m of cameras in Lewisham rises again, in line with the trend experienced in non-camera areas. But in Catford the trend remains relatively constant. This improvement over other areas may be influenced by the cameras, but it is difficult to justify this claim when the camera-covered area in Lewisham keeps so closely to the trend for areas away from CCTV, and the improvement in Catford comes so long after CCTV was put in place.

Chart 9: Trend in Robbery By Camera Influence Area

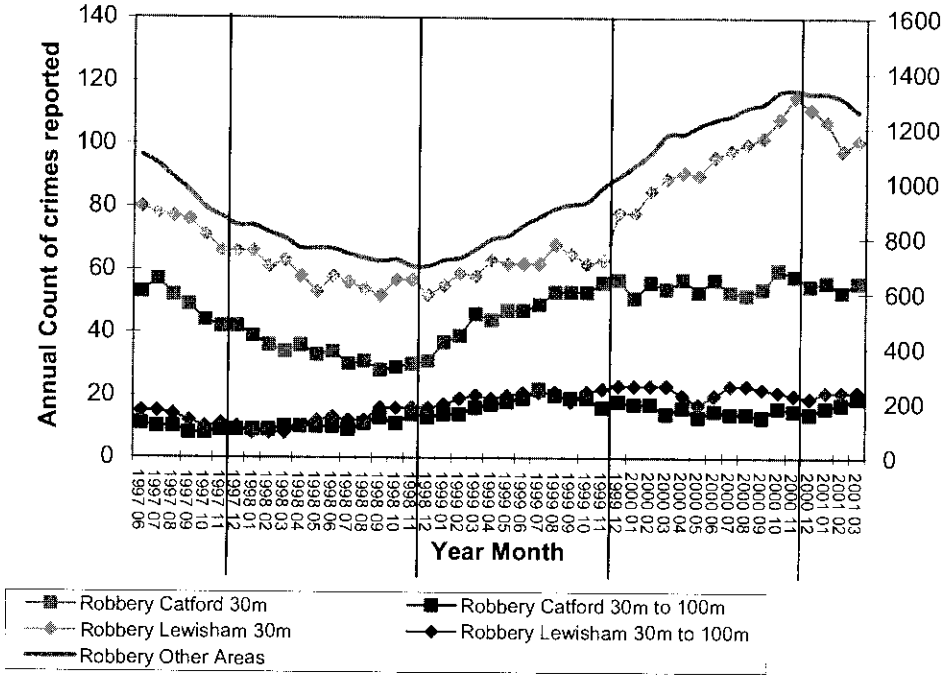
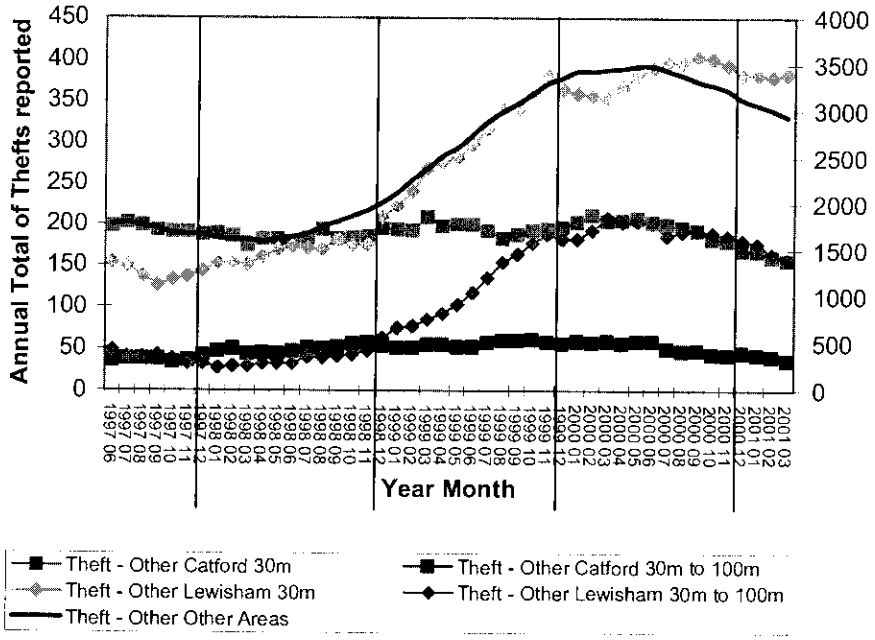


Chart 10: Trend in theft by Camera Influence Area



5.8.7 Theft

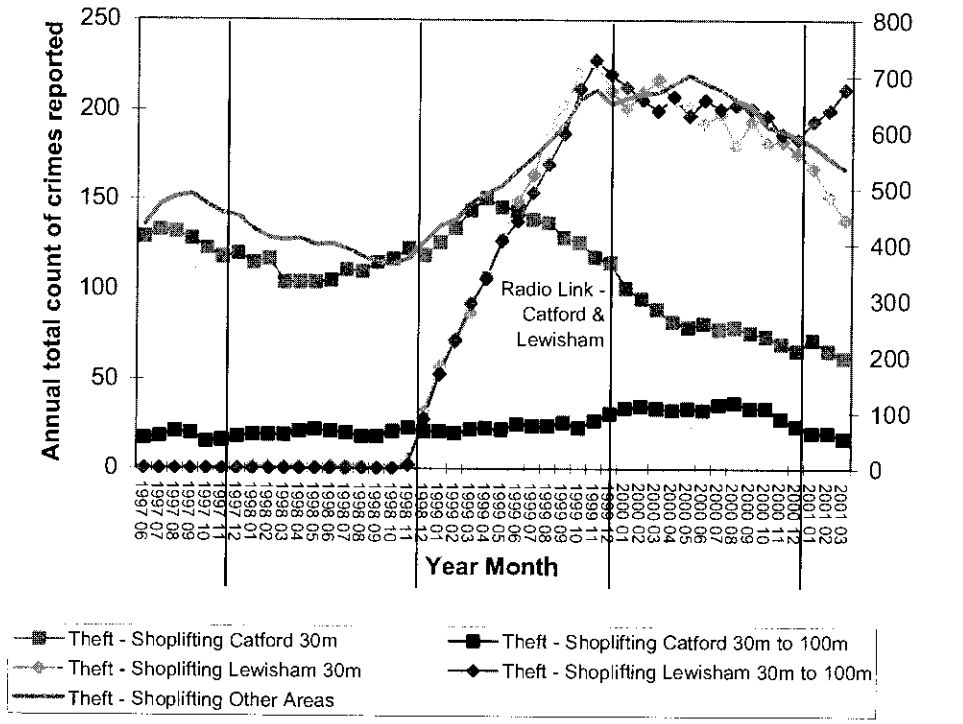
The 'theft' group contains offences with very different characteristics. Some, notably theft from a dwelling, are crimes that take place away from camera scrutiny. Others, such as snatch or 'dip' theft from the person, are just the sort of offences that the public might expect CCTV to combat. Chart 10 shows the trend for this aggregation of offences.

Among the areas in the study with CCTV, Catford is the area with the greatest theft problem – with over 200 recorded a year within 30m of the cameras. This rate has changed little over the four years studied. However, in the areas away from CCTV there has been a substantial increase in thefts. Against this trend, the camera surveillance area has shown good performance. However, with little data before cameras were introduced it is difficult to establish evidence of a change in the trend at the time the cameras were installed, making it difficult to be confident about attributing the benefit to their presence. Also, the improvement against the trend in non-CCTV areas is matched by the trend in the 30–100m areas. If the improvement was related to CCTV these areas should not have had the same benefit.

In Lewisham the trend seem to mirror the overall trend for areas outside CCTV coverage.

5.8.8 Theft from shops

Chart 11: Trend in Shop Theft by Camera Influence Area



Street CCTV cannot provide surveillance of thefts from shops, but it can help find a suspect who has left the store and is still within the town centre. The difficulty is of course getting information quickly to CCTV control room staff to enable them to assist with finding or tracking an offender, and therefore the sort of direct radio link between store security staff and the control room that can be provided by a retail radio link scheme will greatly increase

the potential of CCTV to reduce theft from shops. A handset for the radio link in Catford and Lewisham was introduced into the control room in August 1999.

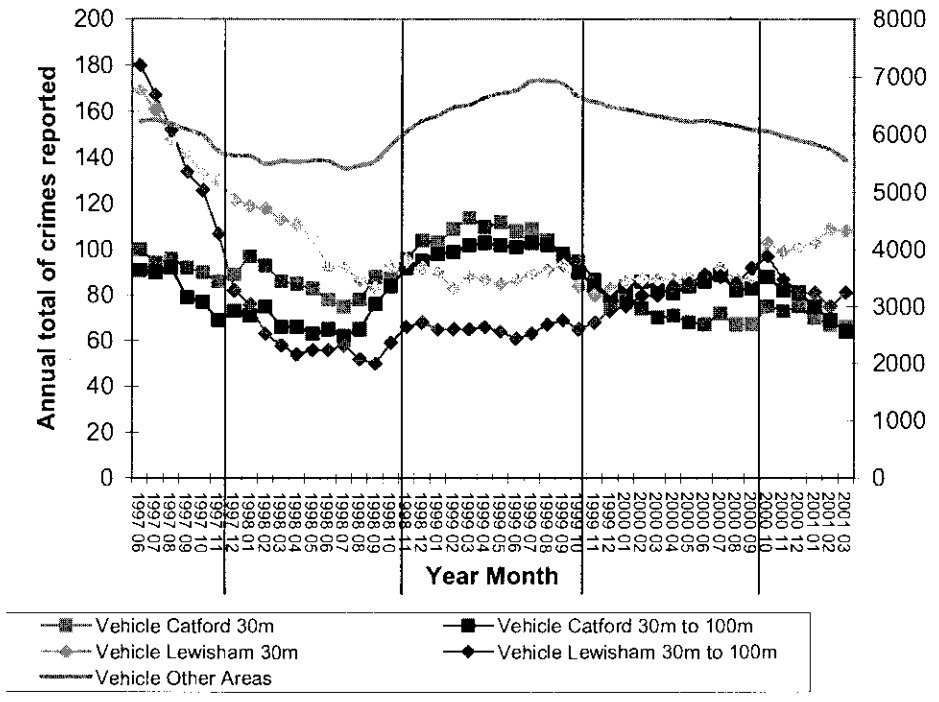
Chart 11 shows the trend in shop theft, with the introduction date for the Radio Link highlighted. The trend in shop theft within 30m of cameras in Catford is not affected by the introduction of CCTV. The trend follows the overall trend for areas without CCTV. It does fall significantly after the introduction of the radio link, but the turning point in the trend was three months earlier. Either the scheme was introduced before the recorded date for going live, or some other factor was the catalyst for the fall in offences. Even if there is an error in the dates, and the turnaround was caused by the radio link and CCTV, it is impossible to distinguish between the contributions made by the two components.

In the other areas there is no impact. Lewisham had no incidents recorded until a year after CCTV, and there was then a steady increase, which was not noticeably changed before or after the radio link was introduced.

5.8.9 Vehicle crime

The control room incident logs did record involvement in searching for stolen vehicles, and street CCTV would be expected to deter theft from motor vehicles. The trend in vehicle crime is plotted in Chart 12.

Chart 12: Trend in Vehicle Crime by Camera Influence Area



In Catford both the 30m and 30–100m areas follow the overall trend experienced by areas away from CCTV.

In Lewisham the trend does show a continuing improvement in both the zones around CCTV compared to other areas. The improvement is more pronounced in the 30m than in the 30–100m area.

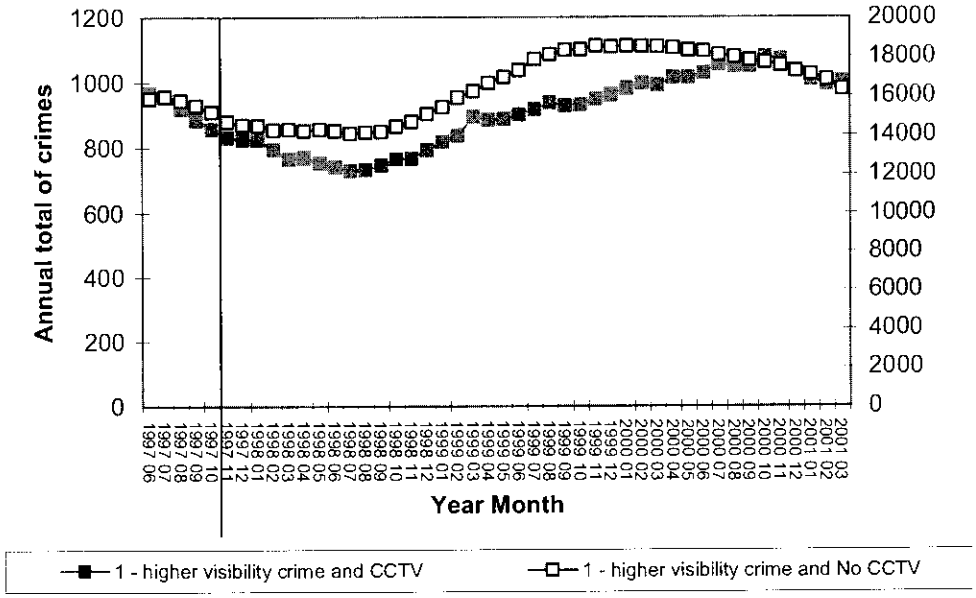
5.9 Visibility of crimes to CCTV

As already mentioned, within some types of crime there are significant variations in how visible they are to CCTV. At one end of the scale are crimes that tend to happen inside buildings, or are by their nature impossible to establish by just looking (such as driving while disqualified) and at the other end are incidents which are likely to happen outside, and are likely to be noticeable if they do take place (such as criminal damage by fire to a motor vehicle). One way to investigate the impact of CCTV is to separate crimes into groups based on the visibility of the crime and examine the trend for each of them in the areas with CCTV and in the areas without.[24]

Charts 13, 14 and 15 show these trends. The CCTV areas are the 30m zones in Catford and Lewisham combined. The areas not covered are those more than 100m from a camera in all other areas. The areas around Deptford cameras and all the 30–100m buffer areas have been excluded.

The format of the graphs is the same as the previous ones. The trends plotted are moving annual totals; the camera areas are plotted against the left-hand scale and the non-camera areas against the right-hand.

Chart 13: Higher Visbility Crimes - Trend by CCTV covered and not



[24] See Appendix B

Chart 14: Lower Visbility Crimes - Trend by CCTV covered and not

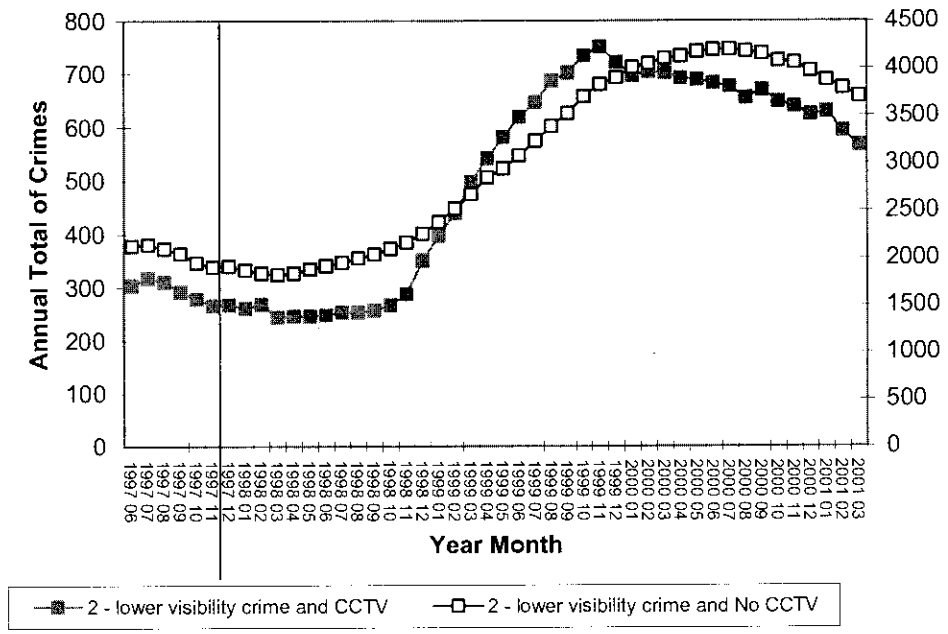
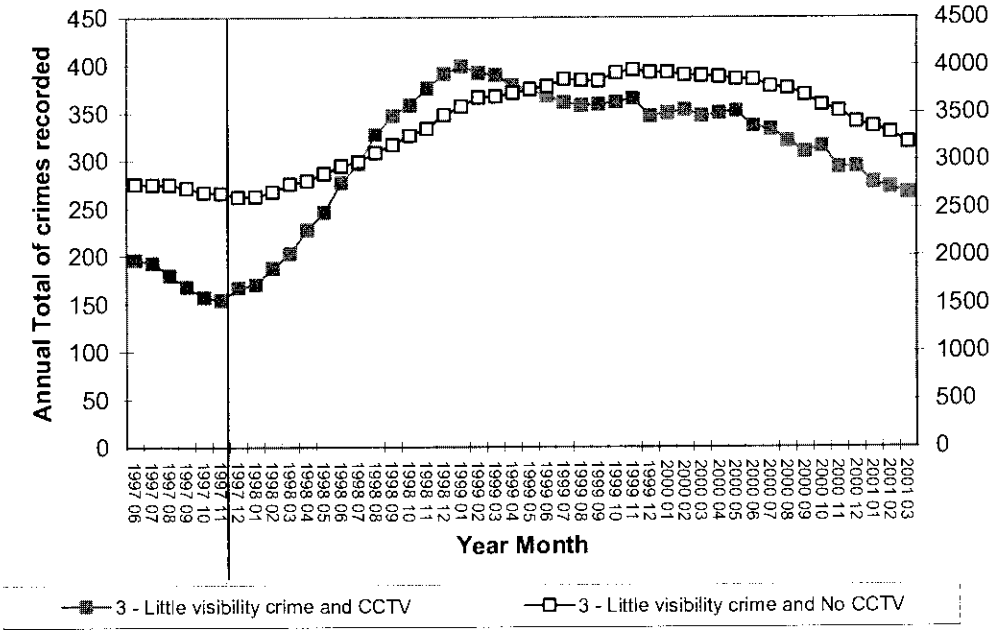


Chart 15: Not Visible Crimes - Trend by CCTV covered and not



The results are not spectacular, but they do show the expected results. CCTV areas do have a trend that falls below the non-CCTV areas in the higher-visibility crimes graph (Chart 13). The trend for less visible crimes (Chart 14) shows a slight improvement over the trend compared to non-CCTV areas at the time CCTV was being introduced, and then a reversal. The trend for the crimes that are not visible (Chart 15) shows a greater increase in crimes in the CCTV-covered area than in the non-covered shortly after the cameras were introduced, and a faster falling trend in the subsequent years.

5.10 Measuring the impact

The work with trends suggests that CCTV had an impact on crime rates in Catford for assault, burglary, criminal damage, robbery and theft. This section aims to see whether it is possible to measure the impact, and how confident we can be that the effect was not a random fluctuation in the trend.

5.10.1 Methodology

To measure the impact of CCTV it is necessary to establish in some way what would have happened if CCTV had not been in place. The best estimate we have of that would be to assume that without CCTV the number of crimes reported would have gone up or down following the trend in the other areas which did not have CCTV (as we have already been doing 'by eye' from the trend charts).

Crimes in the broad category of assault, burglary, criminal damage, robbery and theft which were classified as 'higher-visibility' were extracted. (The twelve crime types that this removed from the broad classifications are show in Appendix C.)

The counts of crimes per month were extracted for two areas:

- areas without CCTV (not in the 30m or 30–100m zones in Deptford, Catford or Lewisham); and
- the area within 30m of a camera in Catford.

The number of crimes per month in the year July 1996 to June 1997 were used as the 'before' period. As has already been noted, it is possible that CCTV was already starting to have some impact before the end of this period, because the project had been underway since February 1997 and there would already have been a good deal of publicity for it. It is however the earliest reliable data available to the project. The implementation was not of course complete by the end of this period, so it was not appropriate to take an 'after' period following immediately from it. Instead, the year July 1998 to June 1999 was used as the 'after' period. So a one-year 'buffer' during and immediately after implementation has been put between the 'before' and 'after' periods.

The first step was to establish a relationship between the crimes per month in the 'other areas' and those in the 'Catford CCTV' area (for each type of crime). From this it is possible to establish the base-line prediction of what would have happened without CCTV. Where possible a regression was used on a scatter plot of the two values for each month to find the 'best fit' linear relationship between two during the 'before' period. However in some cases the relationship was already negative – in the months before CCTV crimes in the CCTV area were going down while crimes in the rest of the Borough were going up. In these cases the simple average ratio between the two groups was used (a simple 'how much bigger').

The extent of the change – the impact of CCTV to the extent that we can be satisfied it was the new factor that made the impact in the areas with CCTV – can then be established by calculating the difference between the expected number of crimes and the actual number recorded.

The 'impact' figures (actual less expected number of crimes), derived in this way for the 'before' and 'after' periods, were then tested for statistical significance (using Mann-Whitney U).

5.10.2 Results

The result of this work is shown in Table 4 below. For each of the incidents the actual number in the 'before' and 'after' year is shown, for the 'CCTV area' (areas within 30m of a camera in Catford), and for the 'non-CCTV area' (the rest of the Borough, excluding all the 30m and 30–100m camera zones in all areas). The projection of the number of incidents is shown, and the difference between this and actual, which is labelled the 'net impact'. Finally, the table records whether or not the change was significant, based on a 0.01 level of confidence – that is that there was less than a 1% chance of replicating these results by chance alone. (It must be noted, of course that because the difference before and after CCTV is significant, it still does not mean that it is definitely caused by the CCTV – just that it is different.)

Table 4. Impact of CCTV in Catford on selected crimes

	Annual totals	
	Before	**After**
Area and type	**June 1997**	**June 1999**
Assault		
Non-CCTV area – actual number of incidents	1,696	2,498
CCTV area – actual number of incidents	115	85
CCTV area – predicted number of incidents	122	158
Net impact	-7	-73 (- 46%)
Significant		Yes
Burglary		
Non-CCTV area – actual number of incidents	4,632	3,861
CCTV area – actual number of incidents	70	46
CCTV area – predicted number of incidents	70	64
Net impact	0	-18 (-28%)
Significant		No
Criminal damage		
Non-CCTV area – actual number of incidents	1,485	2,008
CCTV area – actual number of incidents	67	42
CCTV area – predicted number of incidents	67	91
Net impact	0	-49 (-54%)
Significant		Yes
Robbery		
Non-CCTV area – actual number of incidents	1,101	844
CCTV area – actual number of incidents	53	46
CCTV area – predicted number of incidents	53	36
Net impact	0	10
Significant		No

Theft		
Non-CCTV area – actual number of incidents	508	522
CCTV area – actual number of incidents	77	69
CCTV area – predicted number of incidents	77	79
Net impact	0	-10 (-13%)
Significant		No

Comparing assaults in the CCTV area with the predicted level establishes that there was a significant reduction: there were 73 fewer incidents in the 'after' period (a 46% reduction). The impact figure in the 'before' column for this crime is showing a reduction of seven incidents. This is because in the first month of this period (July 1996) there were no crimes recorded, so including this month would have given a higher projected level of crime in the 'after' year, and it seemed appropriate to use the more conservative result derived by excluding this month from the projection calculation. However, this does result in the projection for the 'before' being seven incidents higher – the seven incidents that were the projection for the month which showed none.

Although burglary was lower by 18 incidents (28%) than the projection, the change was not statistically significant.

The difference in criminal damage was a 54% reduction from the projection – a saving of 49 incidents, and this was significant.

The impression of an improvement given by the robbery trend was not validated by calculating a projection. For the 'after' period chosen, the projection from the number of incidents in other areas would have predicted ten fewer robberies than were actually experienced.

Theft was ten incidents (13%) less than the prediction, but there was too high a chance of this occurring by chance for the result to be significant.

Section Six: Conclusions

The preceding section of this evaluation concluded that while tentative claims can be made that the CCTV scheme in Lewisham has had a beneficial effect on crime incidence in a single town centre, with no discernible displacement effect, no conclusive claims at all can be made for elsewhere in the Borough. However, a reduction in crime incidence, while it is the Holy Grail of crime reduction initiatives, was not the only aim of those who planned, implemented and expanded the CCTV scheme, nor is crime deterrence the only baseline against which it should be judged.

Against other yardsticks, the Lewisham scheme has performed well. It appears to have impressed the police, to the extent that officers who come into contact with it and use it the most have the highest opinion of its benefits. This is not a 'halo effect', as such officers do not rate the scheme significantly higher across the board, but rather on particular attributes which they have seen and benefited from.

By their own efforts the CCTV management and operators appear to have improved their effectiveness by convincing the Borough police to involve them in two-way direct communication, which was initially not forthcoming. They have also shown themselves able to persuade officers to attend incidents, and arrests have occurred as a result. In assisting the police in this way they have enhanced their own reputation on specific measures such as officers' perceptions of their ability to interpret the images. There are prospects that police use of the CCTV system might as a result improve, and that levels of co-operation among crime reduction agencies who have contact with the CCTV room will be enhanced.

It is also important that the CCTV images are credited by the police with persuading suspects to admit offences in interviews, which they might otherwise have refused to do, and to enter guilty pleas where they might otherwise have pleaded not guilty. The study is important in highlighting this, since much previous research has focused on effects on crimes rates and the like, often difficult to prove, when these benefits are very real in their consequences, and if replicated elsewhere mark an important, and often unheralded advantage of this security measure.

The conclusion of this evaluation, reflected in the CCTV User Group assessment, is that Lewisham's is a high-quality town centre CCTV scheme with a good relationship with those who must work closely with it. These qualities are generally regarded as essential if CCTV is to have a chance of being effective, and while at this stage an effect on the incidence of crime cannot conclusively be determined, the other advantages are ones to highlight.

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Appendix A. Methodology of the CCTV User Group's assessment of a CCTV control room

Background to the CCTV User Group assessment and accreditation process

1 The CCTV User Group assessment and accreditation process is intended to measure how well any type of CCTV system is being managed and operated in accordance with the legislative requirements of current Acts of Parliament, with nationally recognised criteria to ensure social and ethical requirements, and with accepted 'best practice' derived from other systems around the UK. It will identify areas in which these standards are being met and those which would benefit from further improvement.

It differs from a conventional 'evaluation' process in that it does not attempt to consider the process by which the scheme was implemented, what impact it has had or what it has achieved (in statistical terms), but concentrates upon the adequacy of the equipment, the method of operation of the system and the procedures adopted, and how these factors might effect the overall effectiveness of the system as a whole.

The assessment process utilises a checklist of 35 pages, with some 15–20 factors per page, that we consider critical to the effective management and operation of the system. The process normally takes one day on site interviewing those involved with the system, one day in the office assessing the organisation's model procedures, records and logs, and one day writing a report summarising our findings.

Areas covered by the assessment:

The conclusions reached are largely based upon comparison of the procedures used with the nationally recognised CCTV User Group model Code of Practice and model Procedures manuals.

In respect of the accreditation process there are few aspects which involve 'passing or failing' (although deficiencies like having no code of practice would lead to an immediate 'fail').

Many of the judgements are subjective; for example the assessor has to interview an appropriate proportion of the operators to judge *their own depth of knowledge* of data protection and human rights issues, so that we can be sure that not only do the written procedures exist, but are actually put into practice and understood by those responsible.

The first part of the assessment will look principally at the control room facilities:

1. Issues include security procedures for the room, the relationships between number of cameras and number of display monitors, and the logical presentation of camera images to an operator facilitating the his/her 'overview'. It considers relationships between number of cameras, multiplexers and recorders, and the frequency of tape changing – all of which are reflected in the refresh rate between successive images recorded on tape.
2. We look at the overall ergonomics of the control room – a separate operator's console, appropriate layout, provision of review facilities, and the means of cleaning tapes prior to reuse.

The second part of the assessment will consider the operation of the Control Room:

3. We consider the appropriateness of operator shifts and numbers of operators on duty, and the use of crime pattern analysis or other management information to indicate where the operators' skills were best utilised at any time of day or day of the week.
4. We consider the tape management arrangements, including the period of tape retention and how many times a tape is used before disposal (to ensure image quality is retained).

5. We consider previous reviews of the system, the organisational structure of the authority, and the degree of commitment to and support for the use of CCTV. We look at police liaison in terms of day-to-day operational involvement or policy liaison meetings.

In the third part we look at all the documentation, compare the code of practice with our own model code, and compare all the procedures with our own model procedures:

6. We seek confirmation that all the issues covered in the code are actually put into practice, e.g. availability of the code and arrangements for subject access and RIPA.

In the fourth part we look in more detail at the individuals involved in the management of the system – their knowledge and expertise:

7. We consider: their knowledge of the implications of legislation and their ways of supervising operators to ensure their compliance; the degree of training they have been given and its adequacy; their arrangements for operator selection/recruitment, who is responsible for this and who carries it out; and what tests and checks are in force.
8. We consider: liaison arrangements with partners; how frequently liaison meetings are held; whether regular reports are issued; whether everyone is kept up to date; and what intelligence sharing exists.
9. We look at the degree of management information provided, and at its frequency/adequacy.
10. We note whether operators see performance statistics on display, together with letters of gratitude or commendation and certificates of staff qualifications.
11. We examine arrangements for system maintenance.
12. We look at other functions performed by the control room, in terms both of taking advantage of a 24/7/365 asset by using it for other functions, and of asking whether those other functions are overworking operators. We ask what other systems (e.g. police radio or retail radio) are in use to facilitate 'intelligence-led' monitoring.
13. We look at the degree of professionalism presented – e.g. uniforms, proper handover arrangements.
14. We look at how date/time stamps on tapes are generated, and whether they are correct on all monitors
15. We look at image quality, day and night environmental conditions in the control room, provision for meal/coffee breaks, telephone/radio protocols, and the operators' general 'style'.
16. We spend a lot of time with operators judging their proficiency, their ability to track a target using a variety of cameras, what they consider an identification-quality image, their approach to monitoring (camera patrols, cameras on tours, home positions) and their knowledge of the town's layout and camera positions.
17. We assess the operators' intuition – whether they know from movements in the crowd that something is beginning to happen before it happens – and their body-language skills.
18. We ask whether there is any evidence of operators acting improperly, what the checks are to ensure they do not, and what would happen if they did; whether they are aware of need for both overall views of an incident and identification shots, and how both can be achieved.
19. We ask whether there are procedures for copying tapes or taking video stills, and whether they comply with 'best practice'.
20. A report will be presented to PRCI summarising our findings of the assessment, highlighting areas where compliance with 'best practice' and with legal requirements has been achieved, and any areas where further work is required. It will present our

assessment of the effectiveness of the management, operation and procedures of the CCTV system and of the personnel involved.

Appendix B. Classification of visible crimes

Table 1. Classification of crimes into visibility groups

Visibility group assigned	Description	Total recorded
1 – higher	Actual bodily harm	5748
1 – higher	Affray S3 POA 1986	280
1 – higher	Aggravated burglary – non-residential	24
1 – higher	Aggravated burglary – residential	211
1 – higher	Assault on police	138
1 – higher	Assault s.18	653
1 – higher	Assault s.20	370
1 – higher	Begging	7
1 – higher	Burglary – non-residential	5596
1 – higher	Burglary – residential	14802
1 – higher	Common assault	5884
1 – higher	Criminal damage (over £2,000)	26
1 – higher	Criminal damage (under £2,000)	8913
1 – higher	Criminal damage by fire	557
1 – higher	Criminal damage by fire to motor vehicle	320
1 – higher	Criminal damage to motor vehicle	8303
1 – higher	Drugs – supply	440
1 – higher	Indecent exposure	279
1 – higher	Interference with motor vehicle	409
1 – higher	Non-crime book homophobic incident	16
1 – higher	Non-crime book racial incident	451
1 – higher	Offences under the Protection from Harassment Act	2070
1 – higher	Robbery	3875
1 – higher	Robbery of person	1930
1 – higher	Taking conveyance	5762
1 – higher	Theft from motor vehicle	12207

Visibility group assigned	Description	Total recorded
1 – higher	Theft from person – dip	689
1 – higher	Theft from person – snatch	464
1 – higher	Theft of motor vehicle	5394
1 – higher	Theft of pedal cycle	898
1 – higher	Theft person	2281
1 – higher	Violent disorder	27
2 – lower	Burglary artifice – residential	313
2 – lower	Causing death by driving	3
2 – lower	Child abduction	35
2 – lower	Dangerous Dogs Act offence	66
2 – lower	Firearms offences	139
2 – lower	Football offences	13
2 – lower	Gross indecency	2
2 – lower	Indecency with children	80
2 – lower	Indecent assault – female	707
2 – lower	Indecent assault – male	91
2 – lower	Kidnapping	94
2 – lower	Malicious/obscene/threatening/nuisance phone calls	1990
2 – lower	Murder	54
2 – lower	Other beat crime	468
2 – lower	Other drugs offences (not possession or supply)	84
2 – lower	Other major crime	903
2 – lower	Other motor vehicle crime	141
2 – lower	Rape	433
2 – lower	Robbery from commercial premises	271
2 – lower	Shoplifting	4071
2 – lower	Theft not catered for elsewhere	7454
2 – lower	Theft of luggage/baggage from traveller	4
2 – lower	Threatening/abusive/insulting words or behaviour	808
2 – lower	Threats to cause criminal damage	57

Visibility group assigned	Description	Total recorded
3 – invisible	Allow to be carried	17
3 – invisible	Animal offences	10
3 – invisible	Bail offences	59
3 – invisible	Blackmail/demanding money with menaces	55
3 – invisible	Bomb hoax	57
3 – invisible	Buggery	8
3 – invisible	Burglary artifice – other	6
3 – invisible	Child neglect	45
3 – invisible	Deception	3378
3 – invisible	Driving when disqualified	378
3 – invisible	Drugs – possession	2922
3 – invisible	Forgery	44
3 – invisible	Going equipped to steal	112
3 – invisible	Handling stolen goods	291
3 – invisible	Immigration offences	1
3 – invisible	Making off without payment	1897
3 – invisible	Malicious/obscene/threatening communications	265
3 – invisible	Non-crime book child care issue	78
3 – invisible	Non-crime book domestic incident	4900
3 – invisible	Perjury	1
3 – invisible	Possession of an offensive weapon	881
3 – invisible	Theft employee	438
3 – invisible	Theft in dwelling	1217
3 – invisible	Theft of post in the mail (not delivered)	259
3 – invisible	Threats to murder	951
3 – invisible	Unlawful sexual intercourse	43
3 – invisible	Uttering forged document	109

Appendix C. Significance results

Table 1. Test statistics

Grouping variable: pre- or post-CCTV

	Assault	Burglary	Criminal damage	Robbery	Theft
Mann-Whitney U	26.000	50.000	23.000	59.000	66.000
Z	-2.656	-1.270	-2.829	-.751	-.346
Asymp. Sig. (2-tailed)	.008	.204	.005	.453	.729
Exact Sig. [2*(1-tailed Sig.)]	.007(a)	.219(a)	.004(a)	.478(a)	.755(a)

a Not corrected for ties.

Appendix D. List of crimes removed from impact analysis

Table 1. Crimes removed from impact analysis because of low visibility

Description
Burglary artifice – other
Burglary artifice – residential
Indecent assault – female
Indecent assault – male
Making off without payment
Robbery from commercial premises
Shoplifting
Theft employee
Theft in dwelling
Theft not catered for elsewhere
Theft of luggage/baggage from traveller
Theft of post in the mail (not delivered)

Crime, Community Safety, Security and Risk Management

PRCI is a leading management and research consultancy that enables our clients to better meet the challenges of responding to different types of threats. Our staff include criminologists who are specialists in understanding crime and community safety and developing innovative responses; experts in security and risk management who assess incidents and evolve preventive strategies; and researchers and analysts who collect and analyse data, identify trends, and conduct evaluations offering cutting-edge insights. Our collective commitment is to provide our clients with solutions that make a difference.

Examples of what we can do for you

Crime and Community Safety

- Crime and Disorder Audits
- Crime Prevention Reviews
- Substance Misuse Audits
- Action Planning and Strategy Development
- Supporting Partnerships including Self Assessments
- Evaluations
- Research
- Researching Crime and Justice

Security and Risk Management

- Security and Risk
- Security Surveys
- Risk Assessments
- Improving Profits Through Loss Reduction
- Security Audits
- Forensic Data Mining
- Risk Modelling
- Improving Transport Safety
- Getting the Best Out of Your CCTV
- Health and Safety Assessments
- Security Resource Optimisation
- Creating Safer Working Environments
- Security Product Evaluation
- Expert Witness
- Research

We have worked with:

- Schools
- Security Companies
- Charities
- Crime and Disorder Reduction Partnerships
- Solicitors
- Government Departments and Agencies
- Unions and Trade Bodies
- Hospitals
- Businesses from SMEs to Multi-nationals
- Retailers
- Insurers
- Leisure and Finance Companies
- Manufacturers
- Police and Prisons
- Local Authorities
- Drug Action Teams
- Financial Companies including Banks and Auditors

Via rigour, insight and innovation, to offer targeted, valuc-added solutions that exceed our clients' expectations

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