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To CCTV or not? An Examination of Community-based CCTV in Ireland

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To CCTV or not?

An Examination of Community-based CCTV in Ireland

A thesis submitted to the Dublin Institute of Technology in part fulfilment of the
requirements for the award of Masters (M.A.) in Criminology

by

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September 2012

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DECLARATION

I hereby certify that the material which is submitted in this thesis towards the award of **Masters (M.A.) in Criminology** is entirely my own work and has not been submitted for any academic assessment other than part-fulfilment of the award named above.

Signature of Candidate _____

(Aidan Donnelly)

Date _____

ABSTRACT

Over the last twenty years, there has been a significant increase in the use of closed circuit television (CCTV) systems. Most people are familiar with the use of such systems in locations such as shops, financial institutions, hotels, schools, hospitals, sports stadia and so forth. However, there are also a significant number of public CCTV systems that have been erected and operate in public space areas such as town centres, residential housing estates etc. Some of these CCTV systems are police only or local authority only systems but a growing number are what is termed community-based systems. The principal aim of this study is to explore the development and use of these community-based CCTV systems with the objectives of investigating societal attitudes and perceptions to CCTV in the community, exploring implications for civil liberties and privacy issues and an examination of the evaluation processes to assess the impact of the systems. The researcher adopted a mixed methods approach of both qualitative and quantitative research for this project. For the qualitative aspect, the method of sampling was purposive with eight persons selected for interview on the basis of their knowledge and experience of community-based CCTV systems. For the quantitative aspect, probability sampling was used with members of the general public randomly selected for face-to-face surveys utilising questionnaires. Recorded crime figures were also examined at each location. The results show that, despite a lack of empirical evidence as to their value in preventing or reducing crime, there is strong public support for these systems and that the foundation for much of this support lies in greater feelings of safety generated in areas with CCTV coverage. The results further show that there is a deficit of ongoing evaluation. The researcher recommends that all systems currently in operation should be evaluated on a continuing basis and that these evaluations should include comprehensive crime figure analysis including crime displacement, opinions and attitudes of the local community, technical specifications and operational requirements of the CCTV system. The researcher also recommends that the community become more knowledgeable of the systems and that the presence of CCTV cameras in the area be frequently highlighted and publicised to inform the public and act as a deterrent.

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CHAPTER 1

Introduction

1.1 Context and Purpose

This dissertation is concerned with public (street) CCTV systems, specifically community-based systems as opposed to Garda town centre CCTV systems and/or the local authority traffic camera systems. Aside from technical specifications, there are distinct differences between each type of system ranging from the “raison d’être” behind their establishment and installation, through to their administration, operation and control.

Community-based systems are initiated within the community by groups representing local community interests who wish to install and maintain a CCTV system in their area. These schemes are generally controlled, operated and maintained by designated persons within the community, in association with the local authority who act as data controller. On the other hand, Garda town centre schemes are initiated by the Garda authorities as an aid to policing and are controlled, operated and maintained solely by members of An Garda Síochána. Local authority traffic camera systems, which are generally employed for traffic management purposes, are controlled, operated and maintained by the local authority. It should also be noted that, although the local authority is the designated data controller for community-based schemes, some local authorities in conjunction with local community groups, were at the forefront in initiating the installation of community-based schemes in their areas and have furthermore acted as the controller, operator and maintainer of such schemes. Finally, it should also be stated that this research study is not concerned with privately owned and operated CCTV systems in private or semi-private space.

The purpose of this research study is to explore community-based CCTV systems with a view to determining their value within the community from the perspectives of public support, impact on crime, value as both a crime prevention measure and as an aid to policing.

1.2 Rationale

The advent of the Garda Síochána Act, 2005 paved the way for the expansion of public (street) CCTV systems in Ireland. For the first time specific legislation was introduced by virtue of Section 38 of the Act to regulate the use of public (street) CCTV systems. In association with this Act, the then Minister for Justice, Equality and Law Reform, Mr. John O'Donoghue, introduced the Community-based CCTV Scheme, a grant aided scheme devised by his Department, which enabled groups representing local community interests to apply for funding to install and maintain a CCTV system in their area. To date, grants totalling approximately €4 million have been allocated to forty-five community-based CCTV schemes throughout the country.

There is limited research in Ireland on the use of public CCTV systems. Appelbe (2008), in a significant volume of work, has carried out a literature review of CCTV as a crime prevention strategy with a strong emphasis on the Irish situation. The largest volume of work has been carried out by An Garda Síochána into its own Garda town centre CCTV systems. Although this researcher has seen these reports by virtue of his position within An Garda Síochána, this research was intended for Garda operational use only and has not been published other than within An Garda Síochána.

Public CCTV schemes are frequently installed to reassure the public about crime (McCahill and Norris, 2002; Gill and Spriggs, 2005; Ratcliffe, 2006). In Ireland community-based CCTV schemes have been promoted by Government with the goal of increasing public safety and reducing the risk of anti-social behaviour and criminal activity in general. However, no published study has been carried out into the effectiveness of these community-based schemes in Ireland, whether they have any positive crime prevention/reduction impact and whether they contribute to a reduction in the fear of crime and conversely an increase in feelings of safety. A similar lack of information pertains to attitudes to public CCTV systems and whether they have the support of the community.

1.3 Aims and Objectives

The principal aim of this research study is to examine the development and use of community-based CCTV systems in Ireland with the following objectives:

- (i) to investigate public perceptions and societal attitudes to CCTV in the community including implications for civil liberties and privacy issues,
- (ii) to examine the initial decision-making process that determines whether to install a community-based system,
- (iii) to explore the evaluation processes used to assess the impact of the systems, and
- (iv) to determine if these are a project worthy of continuance into the future.

It is hoped that this research will be of benefit to those persons involved with or contemplating installing a community-based CCTV system within their own areas. It is also hoped that the findings will provoke further debate and scrutiny of such systems.

1.4 Limitations

This study is limited to community-based CCTV systems only. While reference is made to CCTV in general, the study does not cover Garda town centre CCTV systems, local authority traffic management camera systems and other privately operated systems in private or semi-private owned areas such as shopping centres, football stadia, retail stores, hospitals, schools and so forth. The researcher limited this study to four selected sites, geographically distinct, across the country. At each site the researcher observed and examined the CCTV system in operation and carried out field surveys utilising questionnaires in each location. Furthermore, at each location, the researcher interviewed a limited number of personnel who had an intimate knowledge of the operation of the CCTV system at that location.

1.5 Structure of Chapters

There are six chapters in total. Following this chapter, Chapter Two examines existing literature relating to CCTV, both in this jurisdiction and also from an international perspective. The legislative position with regard to public (street) CCTV systems from an operational, regulatory and data protection perspective and the current guidelines and operating protocols for public CCTV systems will be examined. The theoretical underpinnings for the use of CCTV will be another area that will be examined in this chapter.

Chapter Three outlines the research methodology adopted. The researcher opted for a mixed methods approach utilising both qualitative and quantitative research. The rationale for deciding on this approach will also be discussed in this chapter.

Chapters Four and Five present the findings of the research and an analysis and discussion on same. For clarity and ease of reference, the researcher will present the findings in Chapter Four utilising tables, charts and written descriptions. In Chapter Five, the findings will be interpreted and cross-referenced with findings from other CCTV studies and correlations, or lack thereof, will be highlighted.

Chapter Six, the final chapter, will outline the conclusions of the researcher and make recommendations related to the research study.

CHAPTER 2

Literature Review

2.1 Introduction

Today, CCTV systems are a common sight in Ireland and have as Appelbe (2008, p. 7) states ‘become a fact of modern life’. A number of reasons have been suggested for their use with proponents advocating their potential to deter crime and criminal behaviour, facilitate police and other law enforcement agencies to more effectively deploy resources, reduce levels of fear within the community, permit post-incident analysis in the investigation of crime and facilitate the prosecution and detection of crime. Conversely, opponents argue that they are ineffective as a deterrent, cause displacement of crime to other areas and are an invasion of privacy (Kilcommins, as cited in Appelbe, 2008: p. ii).

This chapter examines the literature with a particular emphasis on theories underpinning the use of CCTV, evaluations of selected studies into the effectiveness and impact of CCTV, governance / regulation and the proliferation of CCTV including the role of government, the media and the public in general.

The United Kingdom, universally regarded as the most surveilled society in the world, provides a substantial portion of the available literature. Further reports from the European Union, United States of America, Canada and Australia are also examined. Unfortunately, from an Irish perspective, the available literature is rather minimal. Apart from Appelbe (2008), most studies have been carried out by An Garda Síochána and, to date, these reports have not been universally published but have, rather, been retained within the Garda organisation for their own operational reasons.

As outlined in Chapter One, there are many different forms of public CCTV systems. Community-based CCTV schemes are distinctly different in their operation and establishment. As a relatively new form of public CCTV system in Ireland, having only been established in 2005, research into community-based CCTV is limited. The author is not aware of any study, generic or system-specific, into their operation and effectiveness, particularly post installation. Consequently, there is limited reading material available specifically in relation to these systems.

2.2 Theoretical Underpinnings

Before examining the reasons behind the application and impact of CCTV systems, it is worthwhile to explore the theoretical foundations upon which its use is based. According to Felson and Clarke (1998), crime theories must support crime prevention. The dramatic expansion in the use of CCTV from the 1980s onwards coincides with the development of what Garland (2001) terms the '*new criminologies of everyday life*'. Previously, most criminological research was focussed on the individual, why certain people commit crime and what can be done to prevent them from offending. According to Eck and Weisburd (1995) theories of crime can be divided into those that seek to understand criminal behaviour from the offender perspective and those that examine the criminal event itself. From the 1970s onwards a number of new crime theories began to emerge. These included routine activity, rational choice and crime pattern theories.

Routine activity theory, postulated by Cohen and Felson (1979), posited that for a predatory crime to occur three elements must be present: a likely or motivated offender, a suitable target and the absence of a capable guardian. Felson (1986) subsequently refined the theory with the addition of a fourth element, that of the 'intimate handler'.

Cornish and Clarke (1986) postulated the rational choice theory which is based on the assumption that 'offenders seek to advantage themselves by their criminal behaviour'. Rational choice theory, like routine activity theory is formulated on the concept of the offender being a rational actor undertaking a cost benefit analysis at a given time and place to assess whether there is the opportunity to offend.

Crime pattern theory (Brantingham and Brantingham, 1993) takes into consideration both routine activity and rational choice and explores the dynamic between offenders and their physical and social environment. They use the concept of 'activity spaces, nodes, paths and edges' and postulate that offenders find targets and become aware of criminal opportunities in the course of their routine daily activities rather than making special journeys to do so.

Eck and Weisburd (1995) subsequently examined these three theories, linked them to the importance of place and developed their crime place theory and in so doing added a fifth element to routine activity theory, that of the 'place manager'.

One of the principal advocates of rational choice theory, Ron Clarke, has also championed the situational crime prevention approach. This approach is under-pinned by rational choice theory, routine activity theory and crime pattern theory and seeks to make objects 'crime resistant' through various methods including target hardening, design, surveillance and so forth. Clarke and Eck (2003) outline the twenty five techniques of situational crime prevention which fall into five main groups and through which the techniques achieve their preventive effect: (i) increasing the effort to commit crime, (ii) increasing the risks, (iii) reducing the rewards, (iv) reducing provocations and (v) removing excuses. A summation of these twenty-five techniques is shown at Appendix 'A'.

The theoretical concept of Crime Prevention Through Environmental Design (CPTED) is also relevant and should not be overlooked. Following earlier work by Jacobs (1961), CPTED was developed by Jeffrey (1971) who coined the phrase 'crime prevention through environmental design' and Newman (1972) who developed the idea of 'defensible space'. CPTED is concerned with designing out crime generating factors from the built environment and surveillance is one of its integral principles.

In all of these theories, crime can be determined from a temporal and spatial perspective / relationship and the classification of the offender as a rational actor. Other commentators have adopted a different theoretical approach. McCahill and Norris (2002a), for instance, have postulated three theoretical approaches to the use of CCTV surveillance. Firstly, they draw on the sociological literature and Michel Foucault's analysis of Bentham's Panopticon where they link the disciplinary potential of the Panopticon to the use of mass surveillance systems. Norris and Armstrong (1999) argue that the extent to which CCTV systems mirror panoptic principles in their operation and effects depends on a number of issues including the fact that the area being monitored is not a closed space, that the watchers are not generally in a position to directly intervene and that the watchers have little if any information on those being observed. Secondly, they examine the 'critical' criminological literature and its links with neo-liberal governance and actuarial-based risk management approaches to crime prevention. Here they suggest that the 'government at a distance', responsabilisation and risk management strategies of neo-liberal governance promotes the use of CCTV systems controlled locally. Third and finally, they link the use of CCTV systems to what they

term *urban geographers* who focus on the socio-economic forces propelling CCTV use including the emergence of the ‘stranger society’ and ‘gated communities’.

The ‘governmentality’ studies of Michel Foucault in his latter years have provided the basis for much contemporary study in the area of governance and how human beings are governed. Foucault regarded governmentality as being concerned with the ‘conduct of conduct’ and the techniques and strategies by which society is governed. The rise of advanced liberal politics commencing with the Thatcher and Reagan governments and subsequently continued by the Blair and Clinton administrations coincided with the demise of the welfare state, significant economic changes involving market collapse, wasteful practices, monetarisation, globalisation and entrepreneurship. This changing political environment has profound implications for freedom and democracy and how we are governed.

The neoliberal political regime promotes individualisation and requires citizens to be self-responsible, advocating that their welfare and security is increasingly in their own hands and that they must take actions and make decisions in their own capacity for their own well-being. Rose (1999), describes it as *government at a distance* and provides for a form of governance whereby the state directs, steers and empowers individual citizens, in the form of individual morality and community responsibility, to govern themselves. Rose (1999) further asserts that the role of the community is evolving. The commercial and public sectors can no longer, in many cases, provide for the needs of the citizen. The State is evolving from a ‘social state’ to an ‘enabling state’ and self-actualisation, whereby people are encouraged to take responsibility for their own well-being, is promoted as part of the mantra of advanced liberalism. The promotion of community-based CCTV, it can be argued, is an example of both self-responsibilisation and empowerment by the community for its own welfare and security, where the government takes a step back but provides incentives and encouragement for the community to govern itself.

2.3 The Proliferation of CCTV

The rapid rise and spread of CCTV in society today, particularly in the U.K. and to a lesser extent in Ireland, can be attributed to a number of factors. Arguably, foremost among these is the role played by the mass media, followed in no particular order by government and politicians, police and the public in general. This is supported by

Groombridge (2002, p. 31) who asserts that 'Policy-makers, press and politicians tend to see CCTV as effective and invite criminologists to endorse those claims'.

2.3.1 Media Support

It is debatable whether the expansion of CCTV into our everyday lives could also have been achieved in the manner that it has without the support of the mass media. Norris and Armstrong (1999) argue that the media's relationship to CCTV is that of the *perfect marriage*. We only have to look at our newspapers and television sets to note and observe the constant reference to CCTV in articles and programmes. We regularly see headlines in newspapers referring to CCTV footage and how it helps to prevent crime or catch criminals. The rise of reality television programmes such as Big Brother, Celebrity Love Island, Tallaforia, The Villa are all based on the use of edited CCTV footage.

Similarly, on other television 'infotainment' programmes such as Crimecall, Police Camera Action, America's Most Wanted and so forth, all use recorded footage taken from crime events. Marriott (2005) outlines the significant dependence on CCTV footage in the production of 'infotainment' television programmes. In discussing the murder of Damiola Taylor in London in November 2000 and the finding of the torso of a young boy 'Adam' in the River Thames in September 2001, Marriott describes the role of CCTV footage in crime investigation through the media. However, Marriott also cautions against the dehumanising of people in these programmes and expresses concerns that people are being treated as 'commodities' to be subsequently sold on to 'infotainment' television. According to Marriott, there is an underlying, unseen control or domination around the production of CCTV 'infotainment' programmes that is disturbing and one that marginalises the more socially deprived or minority elements in society and includes a racial discrimination perspective.

2.3.2 Government and Political Agenda

Government support and the body politic in general have been crucial to the roll-out of public CCTV systems. The Conservative governments of Margaret Thatcher and John Major were the first to fully embrace the concept and actively promoted its use in order to reduce rising crime figures. McCahill and Norris (2002b) argue that the use of CCTV was attractive to government as it 'dovetailed neatly with their ideological demands for privatisation of the public sector'. The shift to neo-liberal governance,

reduced finances, public service cutbacks and the responsabilisation of citizens made CCTV usage highly desirable from a government perspective. New Labour under Tony Blair also bought into this approach.

Political support for CCTV usage can be found in the following examples cited in Norris and Armstrong (1999): Tony Blair proclaimed that CCTV was having ‘a tremendous impact on crime’ and at the same time former Conservative leader Michael Howard proclaimed that ‘CCTV catches criminals’. The Labour Foreign Secretary Jack Straw’s statement (as cited in Parker, 2001, p. 67) that ‘mass surveillance by CCTV is a price worth paying for security in such troubled times, when street violence, crime, theft, burglary and other horrors are showing no signs of abating’.

In Ireland, the former Minister for Justice, Michael McDowell, was an avid supporter of CCTV usage and, as cited in Appelbe (2008, p. 75), asserted that ‘CCTV has proved extremely successful in the prevention and detection of crime and is part of a series of measures aimed at tackling street assaults, public disorder and fear of crime’. His predecessor in the office, Mr. John O’Donoghue, was also supportive of CCTV as evident by his opening statement in his foreword to the Application Prospectus for Grant Aided Funding Towards Community Based CCTV Schemes in which he states ‘I have long been an advocate of CCTV systems and the benefits they can bring to an area in terms of crime prevention and detection’. It is not difficult to see why, with such strong political support, that the public have adopted a favourable view of CCTV usage.

2.3.3 Public and Police

Aside from public, open space areas, CCTV systems are deployed everywhere from shops, pubs, sports stadia to schools, hospitals and so forth. It could be argued that, due to the proliferation of CCTV, citizens have become accustomed to their presence and indifferent to their use. The deployment of CCTV systems does not seem to unduly bother the public as more and more ‘surveillance activities’ encroach into society ranging from the internet, smartphones, social networking sites, webcams, the mass media and so forth.

According to Norris and Armstrong (1999), one of the reasons for the widespread acceptance of CCTV by the public lies in its mutating and evolving character. That is to say, CCTV systems are being deployed for purposes other than crime prevention – traffic monitoring, locating lost children, health and safety

surveillance and libel cases, congestion, watching wildlife to name but a few. These different approaches make CCTV more familiar and acceptable and part of everyday life.

With regard to police, and despite reservations expressed by some officers concerning the effectiveness of CCTV, senior officers in police forces throughout the world are still supportive of the use of CCTV as a crime prevention measure and as an aid to policing. As an example, the London Metropolitan Police, in endorsing the use of CCTV, have published the following statement on the crime prevention page of their website that ‘CCTV systems are an important weapon to fight against crime’ (<http://www.met.police.uk/crimeprevention/cctv.htm>). Further evidence for police support is provided by Appelbe (2008) who asserts that the main impetus and driving force behind the proliferation and spread of CCTV in Ireland has been the Gardaí.

2.4 Evaluation Studies and Effectiveness

The rationale put forward for utilizing CCTV systems is that it *prevents crime*. The various studies to date have had mixed results leading commentators to question the evaluation process.

All crime prevention measures should be analysed to determine their effectiveness and to inform future adherence to and progression of the particular measure. CCTV is no different, and various studies and evaluations have been undertaken into its effectiveness. However, the basis for any study must be founded on a robust evaluation process that stands up to critical scrutiny. Concerns have been expressed in relation to many of the earlier evaluation studies.

At the heart of all programme evaluations, according to Tilley (1993a) and developed further by Pawson and Tilley (1994, 1997), is the relationship between the crime prevention measure (in this case, CCTV), the outcome (the reduction in crime and the fear of crime), the mechanism through which the outcome is produced, and the context in which it occurs. In order to assess how CCTV can reduce crime and in what circumstances, nine potential mechanisms, summarized in Table 1 hereunder, have been postulated by Pawson and Tilley (1994, 1997). These are not mutually exclusive and more than one mechanism may be operating at any one time.

Table 1: Evaluation Mechanisms (Pawson and Tilley, 1994, 1997)

<p>(1) <u>Caught in the act:</u> CCTV could reduce crime by observing criminal behaviour and stopping or arresting the offender who is ultimately punished and consequently deterred from again committing the offending behaviour.</p>	<p>(2) <u>You've been framed:</u> CCTV could reduce crime by deterring potential offenders through the risk of arrest/apprehension through the use of video evidence of them committing criminal behaviour.</p>	<p>(3) <u>Noseyparker:</u> Potential offenders may be deterred because natural surveillance is increased and more people will use the area thereby providing greater opportunities for people to keep an eye on what is happening.</p>
<p>(4) <u>Effective deployment:</u> CCTV may facilitate the effective deployment of police and/or security officers to areas where suspicious behavior is observed. Their presence may deter offenders or may mean they are caught in the act.</p>	<p>(5) <u>Time for crime:</u> The greater the length of time it takes to commit a crime, the better chance of a police, security or other response and the more likelihood of the offender being captured on CCTV. The converse is also true and offences committed in short time periods are less likely to be affected by this particular mechanism.</p>	<p>(6) <u>Publicity (specific):</u> The use of CCTV cameras and appropriate signage may show potential offenders that crime is taken seriously in the location and that there is a strong commitment to crime prevention or reduction in the area. Public usage of the area may also increase as a result, thereby augmenting natural surveillance.</p>
<p>(7) <u>Publicity (general):</u> This may assist in deterring offenders (but crime might be displaced by location or offence).</p>	<p>(8) <u>Memory jogging:</u> Publicity about CCTV encourages potential victims to be more security conscious about themselves and their property. This mechanism may also encourage them to take further and/or better security precautions.</p>	<p>(9) <u>Appeal to the cautious:</u> Those who are more security-minded use the areas with CCTV, driving out the more careless who may be vulnerable to crime elsewhere.</p>

There are also a variety of contexts in which crime takes place, and these will influence the potential effect of the mechanisms specified above. Five such contexts identified by Pawson and Tilley (1994, 1997) are set out in Table 2 hereunder.

Table 2: Contexts in which crime can take place (Pawson and Tilley, 1994, 1997)

1.	<u>Criminal clustering</u> - this depends on the offender-offence ratio. If it is one offender doing lots of crime, then the mechanism with the most potential is the caught in the act mechanism.
2.	<u>Style of usage</u> - if the area is always in use, then the noseyarker mechanism increases will have little effect on the pattern of crime. If the area is little used, then any increases in usage and surveillance could increase the volume of incidents but reduce the number of people being victimized overall.
3.	<u>Lie of the land</u> - those in blind spots will be unaffected if it is presumed that CCTV will operate through increasing the likelihood of evidence being caught on camera (you've been framed], but not if it leads to people being more security-conscious (memory jogging mechanism) or increasing the likelihood that security-conscious people will use the area (appeal to the cautious mechanism).
4.	<u>Alternative targets</u> - regardless of a specific area's CCTV coverage, displacement may occur depending on the motivation of offenders and whether there are alternative targets.
5.	<u>Resources</u> - there may be few or no security staff to be deployed who can deter crime, as in the effective deployment mechanism. To these can be added: the physical layout of the area, the cultural traditions and concerns of those within the area covered, the way the CCTV system is managed and operated, and attitudes towards its use.

With regard to the various CCTV studies and evaluations that have been conducted, Welsh and Farrington's (2008) meta-analysis of forty one out of forty four CCTV impact studies, whose main objective was to examine and assess the available research data on the effects of CCTV cameras on crime in public areas, found that CCTV slightly reduces crime and its effectiveness depends upon the context and type of offence. It found, for instance, that CCTV is most effective in reducing crime in car parks and when targeted at vehicle crimes.

Notwithstanding the aforementioned, the study also supported the continued use of CCTV to prevent crime in public space but suggested that it 'be more narrowly targeted than its present use would indicate and that future CCTV schemes should employ high-quality evaluation designs with long follow-up periods' (Welsh & Farrington, 2008, p. 2).

2.5 Crime Displacement and Diffusion of Benefits

A criticism often levelled is that of crime displacement which is frequently directed at situational crime prevention measures, including the use of CCTV. Six types of displacement have been identified in the literature (Repetto, 1976; Clarke and Weisburd, 1994; Felson and Clarke, 1998) – spatial, temporal, tactical, target, functional and perpetrator.

With regard to CCTV, commentators argue that offenders will either change their preferred crime option or move elsewhere. Others though will suggest that there can be a ‘diffusion of benefits’ to neighbouring areas which may also see a reduction in crime. Clarke and Weisburd, (1994) argue that it has also been found that a diffusion of benefits can occur where the crime prevention / reduction effects of having CCTV systems in one location may also benefit adjoining areas that do not have a CCTV system installed. Clarke (1995) suggests that this may distort evaluation findings as crime levels may also have dropped in the control area and that this should be taken into consideration when evaluating any system.

Albeit in a study not solely confined to the use of CCTV, Hesseling (1994) in a review of fifty five published international studies found that there was no evidence of displacement in twenty two of the studies with six having a beneficial effect (diffusion) in adjacent areas. In the remaining thirty three studies, limited displacement was found. There was no evidence of complete displacement.

Specifically with regard to CCTV, Gill and Spriggs (2005) found that spatial displacement was not common but did occur. Similarly, Waples, Gill & Fisher (2009), in an examination into spatial displacement also concluded that spatial displacement can occur but that it was not a certainty. Both studies acknowledged that crime displacement is a difficult area to examine and, ‘especially as no standardised method has yet been specified’ (Waples et al, 2009, p. 220).

Phillips (1999) highlights a further third area of concern when evaluating CCTV usage. She asserts (quoting Groombridge and Murji, 1994) that the installation of CCTV cameras in an area may detract from the self-policing and crime reporting role of the general public in that area. It is asserted that the public may be less willing to report crime believing instead that the CCTV cameras will pick up the crime incidents and that as a result there is no need for them to report any such incident. Such occurrences may,

as a result, also influence the crime detection rate for the area. In order to take this into consideration when evaluating projects Phillips argues for victimisation surveys to be conducted pre- and post-installation.

2.6 Governance, Regulation and Legal Issues

There is no specific piece of legislation covering the legal use of CCTV in Ireland. The primary legislation covering the use of CCTV is provided by the Data Protection Acts, 1988 & 2003 and the Garda Síochána Act, 2005. Other pieces of regulatory control are facilitated through the European Convention on Human Rights (ECHR) and the Constitution of Ireland. In addition, and specifically for community-based CCTV systems, there are also a number of guidance documents.

2.6.1 Relevant Legislation

Both the Data Protection Acts 1988 & 2003 and the ECHR afford protection with regard to privacy issues. Article 8 of the ECHR (Right to respect for private and family life) is particularly relevant as is Section 2 of the Data Protection Acts with regard to the collection, processing, keeping, use and disclosure of personal data.

Several cases stated relating to CCTV issues have been taken in the Courts, both in Ireland and internationally, and these are listed in the appendices. One case in particular, that of Geoffrey Peck, is significant in that the European Court of Human Rights found the U.K. to be in breach of Article 8 and ordered the U.K. to pay compensation to Mr. Peck. This precipitated a review of the use of CCTV in England and Wales that resulted in the publication of a National CCTV Strategy in 2007 and the establishment of a multi-agency National CCTV Strategy Programme Board. The Protection of Freedoms Bill, published in February 2011, provides for further regulation of CCTV but to date has not been enacted. Other significant cases are *Katz -v- United States* (1967) where the Court ruled that people in public places cannot expect privacy because they are knowingly exposing themselves and *United States -v- Knotts* (1983) where the Court ruled that people on public roads are subject to surveillance because they are in a public area.

Section 38 of the Garda Síochána Act, 2005 allows the Garda Commissioner to authorise the installation and operation of CCTV in public places for security and public safety reasons. Section 38(11) also provides for the Minister for Justice to issue

guidelines to the Commissioner covering his supervision and control of the monitoring of CCTV systems by authorised persons. The effect of this section is that persons, other than the Gardaí, can install and operate CCTV systems in public spaces for the purpose of securing public order and safety and this is the fundamental legal basis for community-based CCTV.

2.6.2 Guidance Documents

Apart from legislative requirements as previously outlined, the installation and operation of community-based CCTV systems are governed by a number of guidance documents issued by or on behalf of the Minister for Justice. Each of these documents is available from the website of the Department of Justice (www.justice.ie/en/JELR/Pages/Community_CCTV).

The first of these documents entitled ‘Community-Based Scheme: Guidelines for Application and Appraisals Process’ outlines the application process and provides general guidelines for community-based organisations to seek funding towards the cost of installing CCTV systems in their area. The scheme is administered by Pobal on behalf of the Department of Justice and is available to community-based organisations only. It is not available to private interests such as clubs or individual groups who wish to install, in the interests of security, a CCTV system at a specific premises or building. It should be noted that these guidelines do not apply where funding from the public purse is not being sought.

The second relevant document entitled ‘Technical Specification: Community-based CCTV Schemes’ was developed by the Telecommunications Section within An Garda Síochána. It provides technical guidelines and specifications that are to be met by community-based groups wishing to install and operate a CCTV system within their area. The document also offers guidance on system design, operational requirements and the implementation plan for the proposed system. A copy of this document is provided at Appendix ‘B’.

The third document, and arguably the more important, is entitled ‘Code of Practice for Community-Based CCTV Systems’. This document outlines the conditions under which a community-based CCTV scheme should function and is critical to all persons involved in the planning, supervision and operation of any such system. The document highlights the legal obligations under the relevant legislation including the

appointment and role of the Data Controller and the appointment by him/her of a designated person or manager with day-to-day responsibility for operating the system. It is also emphasised within this document that it needs to be constantly kept under review and updated as required to take into consideration developments and changes in law, practice and technology. The recent judgement in the Anthony Holness assault case against four Gardaí has highlighted the importance and requirement for proper procedures and training to be followed with regard to monitoring CCTV systems and is testament to the need to be vigilant in this area. A copy of the code of practice is available at Appendix 'C'

2.7 Chapter Summary

Today, CCTV systems are a common sight in Ireland and a part of modern life. There is little doubt that CCTV systems are here to stay with the literature supporting this assertion. What is uncertain however is the effectiveness of CCTV as a crime prevention tool.

Evaluation studies have shown mixed results and, as postulated by Welsh and Farrington (2008, p.20), 'Advancing knowledge about the crime reduction benefits of CCTV schemes should begin with attention to the methodological rigor of the evaluation designs'. Many factors, such as CCTV coverage, type and number of cameras, lighting, security presence, appropriate control areas, socio-economic factors (poor housing, poverty), statistical validity and longer follow-up periods and so forth, must be taken into consideration. Welsh and Farrington have also suggested that further research is also needed to identify the active ingredients of effective CCTV programs and the causal mechanisms linking CCTV to reductions in crime.

CHAPTER 3

Methodology

3.1 Introduction

According to Maxfield and Babbie (2006), much criminal justice research is carried out to explore a specific problem where a researcher may be interested in a specific crime problem or criminal justice issue on which little is known. The purpose of this research study is to explore community-based CCTV systems with a view to determining their value within the community from the perspectives of public support, impact on crime, value as both a crime prevention measure and as an aid to policing.

This chapter outlines the methodology used to answer the research question and how the particular methodology was decided upon. The chapter commences by outlining the research design and approach and the justification for its adoption. The sampling methods employed and the collection of data are then discussed and explained. Further sections on the analysis and interpretation of the data gathered in the course of the research and ethical considerations are then outlined before concluding the chapter with a discussion on the strengths and limitations of the research.

The objective of this chapter is to outline the research design and methodology so that the reader can understand the reasoning behind the research methods employed and be in a position to judge the validity of the study.

3.2 Research Design and Approach

Criminal justice research can be conducted utilising a variety of methods. Maxfield and Babbie (2006, p. 84) assert that ‘each method has strengths and weaknesses, and certain concepts are more appropriately studied by some methods than by others’. The choice of research method is, therefore, one that needs careful consideration and is influenced by many factors. It cannot be categorically stated that one approach is better than another. Patton (2002) argues that there are no perfect research designs. Limited resources and limited time will frequently determine the choice of research design. According to Blaxter, Hughes and Tight (2006), in considering the question *Which method is best?* the answer is not about whether to use interviews, questionnaires or

observations to gather the data but to understand the more general philosophy underpinning the study.

Creswell (2009) argues that the choice of method is influenced by numerous factors including whether the intent is to detail the type of information to be collected in advance or whether to allow it to emerge from the study. He further asserts that one needs to consider the full range of data collection possibilities as outlined in table 3 hereunder.

Table 3: Quantitative, Mixed and Qualitative Methods (Creswell, 2009)

Quantitative Methods →	Mixed Methods	← Qualitative Methods
<ul style="list-style-type: none"> • Pre-determined • Instrument based questions • Performance data, attitude data, observational data, and census data • Statistical analysis • Statistical interpretation 	<ul style="list-style-type: none"> • Both pre-determined and emerging methods • Both open- and closed-ended questions • Multiple forms of data drawing on all possibilities • Statistical and text analysis • Across databases interpretation 	<ul style="list-style-type: none"> • Emerging Methods • Open-ended questions • Interview data, observation data, document data, and audio-visual data • Text and image analysis • Themes, patterns interpretation

Denzin (1989) argues that single-method, single-observer and single-theory studies are susceptible to an intrinsic bias and that a mixed approach combining multiple observers, theories, models and data sources can overcome such bias and be of benefit to the research study.

Bachman and Schutt (2007) refer to four categories of research as follows: descriptive, exploratory, explanatory and evaluation. After careful deliberation, the researcher felt that the study would be better suited by both exploratory and evaluation research and subsequently elected to adopt a mixed methods approach of both qualitative and quantitative research for this project.

3.3 Sampling

Berg (2004, p. 34) states that the ‘logic of using a sample of subjects is to make inferences about some larger population from a smaller one – the sample’. For the purpose of this research study, the researcher adopted a mixed methods approach consisting of both qualitative and quantitative research. Patton (2002) argues that the use of both qualitative and quantitative data can aid in clarifying complementary aspects of the same phenomenon.

For the qualitative aspect, the method of sampling was purposive. Patton (2002) describes three forms of sampling limitations that can arise in qualitative research design. He describes these as (i) situational limitations, where it is not always possible to observe all situations within a single setting, (ii) temporal limitations, where observations may differ over time and (iii) selectivity limitations, where the selection of different persons for interview or document sampling may produce different results. The researcher was cognisant of the above limitations when selecting persons for interview. A total of eight persons were selected on the basis of their knowledge and experience of community-based CCTV systems. Of the eight people selected, three were the data controllers / administrators for their schemes, four were members of An Garda Síochána with a specific knowledge of the operation of community-based CCTV schemes in their Garda district and the final person selected was a member of the CCTV Advisory Board.

For the quantitative aspect, probability sampling was used. Noaks and Wincup (2004) describe how the social survey has become a common feature of criminological research. The researcher elected to adopt this type of neighbourhood survey to elicit the views of the general population to CCTV. Other methods of collecting data such as self-completion questionnaires, postal, email and telephone means were rejected on a variety of grounds including low response rates, lack of opportunity to observe and probe, time and resources.

Four locations with community-based CCTV systems in operation were visited and approximately forty persons at each location were randomly selected for face-to-face surveys. Each questionnaire was administered by the researcher and clarification on the questions being asked was provided to each of the respondents if sought as a matter of course.

3.4 Collection of Data

Bachman and Schutt (2003, p. 19) assert that ‘the distinction between quantitative and qualitative methods involves more than just the type of data collected’. For the purposes of this research study, the data gathered in the course of this research came from both in-person interviews (qualitative) and field surveys (quantitative).

Oppenheim (1992) asserts that the ability to conduct a good interview is a vitally important skill to the research worker with the interviewer requiring good interpersonal skills, being able to put the interviewee at ease and at the same time showing interest, support and allowing the interview to proceed without undue distractions or interruptions to the flow of conversation.

The researcher endeavoured at all times to put the interviewees at ease and to provide as much information as was required and relevant to the interviewee. The interviews were conducted at locations and times suitable to and agreed with the interviewees. Most were conducted in the workplace of the interviewee, though one was held by agreement outside of the workplace. Each interview took approximately thirty minutes.

A decision had to be made whether to record the interviews or take notes. Blaxter et al (2006) outline both the advantages and disadvantages of either strategy, the summary of which is outlined in the table hereunder.

Table 4: Advantages/Disadvantages of Recording Interviews (Blaxter et al, 2006)

Advantages	Disadvantages
<ul style="list-style-type: none">• Can concentrate solely on the process of the interview.• Allows the interviewer to focus on the interviewee, giving appropriate eye contact.• Interviewer can observe non-verbal communication, gestures etc.• A verbatim record of the whole interview will be available following the interview.	<ul style="list-style-type: none">• Recording may make interviewees anxious.• Interviewees may be less likely to be forthcoming and reveal confidential information.• Recordings can take a long time to transcribe• Note-taking can be distracting and may lead to interviewees to think they have said something significant.

The researcher decided that the advantages of recording outweighed the disadvantages and consequently adopted that strategy. All interviewees were specifically asked if they had any objection to the interview being recorded by use of a microcassette recorder. All agreed and each interviewee was assured that anonymity would be guaranteed; that the findings would be used solely for this research project and that all recordings would be subsequently destroyed.

The survey questionnaires were conducted in public areas in each location. The researcher approached passers-by in a random manner requesting them to participate in the study. The researcher also noted the number of refusals from a gender perspective. A total of one-hundred-and-sixty-one responses were achieved. During the surveys, the researcher endeavoured, as best as possible with limited shorthand skills, to capture responses to open-ended questions in a verbatim manner. However, where a respondent had a lot to say, key words were noted and, on completion of the survey, a fuller account was transcribed onto field notes kept by the researcher.

3.5 Analysis and Interpretation of Data

Patton (2002) describes how the challenge of qualitative analysis lies in making sense of large amounts of data and thereby transforming this data into findings. Raw information has to be thoroughly examined and sorted; insignificant data must be separated from the significant; patterns, key words and phrases must be identified. The primary objective is to reveal the essence of the data and transform it into findings. No formula exists for such transformation, only guidelines. Patton (2002) further asserts that 'qualitative analysis ultimately depends on the analytical intellect and style of the analyst'.

All interviews were transcribed by the researcher which provided the opportunity for the researcher to reflect on the data gathered and to identify emerging themes and patterns. A coding frame was utilised for this purpose.

The quantitative data gathered from the field surveys was analysed using Statistical Package for the Social Sciences (SPSS) software. The open-ended questions and comments generated by the respondents were analysed in a similar manner to the data gathered from the interview process.

3.6 Ethical Issues

Diener and Crandall (as cited in Bryman, 2008, p. 118) refer to four areas of concern with regard to carrying out research as follows: (i) harm to participants, (ii) lack of informed consent, (iii) invasion of privacy, and (iv) deception. In addition to the above, Christians (2005) makes reference to two other areas of concern: (v) assurance of confidentiality, and (vi) accuracy of information / data.

Every effort was made by the researcher to alleviate the above concerns and all aspects of this project from research to data collection, analysis and data storage were conducted in accordance with the guidelines outlined in the Code of Ethics of the Dublin Institute of Technology. The researcher also took cognisance of the Code of Ethics of the British Society of Criminology.

All persons interviewed were given sufficient information with regard to the research project and their consent obtained prior to each interview. Each interviewee was informed that their participation was voluntary and the researcher also provided assurance that all views and opinions expressed would be anonymous and used for this research only. The researcher was also conscious of his own position in knowing some interviewees. However, the researcher was also confident that this did not present any ethical dilemmas for the research as the researcher did not work with any interviewee or in any of the interviewees' work areas.

All questionnaires were carried out in a random manner at each location. The researcher was not associated with any of the selected locations and did not know any of the respondents. In total, forty two percent of those asked to participate in the 'street' questionnaire refused; however, there was significant variance in this figure between locations.

All information and data gathered during the research project was stored on encrypted hard drives and paper copies were kept in a secure location.

3.7 Strengths and Limitations

The field surveys (161 respondents) and interviews (8 persons) were carried out in four locations throughout the country. However, there are in excess of fifty community-based CCTV schemes in existence and there are many variations in terms of the size of the scheme, topography of areas covered, number of cameras and so forth. While the

researcher attempted to gather information from as broad a spectrum as possible, it is still a relatively small sample from a much larger field. The scope of this research study, with its time and resource constraints, does not allow for broad generalisations to be made from a national perspective. However, as little or no research into this subject area has been published, it may be of benefit to persons involved with community-based schemes and act as a catalyst for a more comprehensive, larger research study in the future.

3.8 Chapter Summary

In this chapter, the researcher presented the research methodology adopted for this project which consisted of a mixed methods approach. The justification and reasoning for such an approach was also outlined by the researcher. Community-based CCTV is a relatively new development in Ireland. Notwithstanding the limitations of the methodology approach taken, it is hoped by the researcher that the methodology is appropriate within the constraints outlined and that the findings of this research will make a valuable contribution to understanding the issues pertaining to the use of such systems.

CHAPTER 4

Presentation of Findings

4.1 Introduction

This chapter presents the main findings from the research undertaken for this study into community-based CCTV systems. The findings are based on data gleaned from three separate sources; namely, the views expressed in the interviews with the researcher by persons involved with community-based CCTV, the responses obtained from the questionnaire utilised in the field survey, and from recorded crime statistics obtained from the Central Statistics Office.

4.2 Interviews

The researcher interviewed eight persons for this research, all of whom were male, ranging in age from thirty-five to fifty-five years. Seven of the eight interviewees were selected because of their knowledge of community-based CCTV, in particular the community-based CCTV schemes within their own area. Two of the interviewees were the data controllers for their particular system, a further interviewee was the administrator appointed by the data controller for the day-to-day operation of that system and four interviewees were members of An Garda Síochána with particular knowledge of the systems in their Garda district. The final interviewee was a member of the CCTV Advisory Group. All research participants were provided with a letter from the researcher outlining the study, a copy of which is shown at Appendix C.

All but one of the interviews were conducted in the workplace of the interviewees. The remaining interview was conducted at a non-work location chosen by the interviewee. All interviewees agreed to allow the interview to be recorded and all interviewees signed the consent document outlined in Appendix D. Each interview consisted of over twenty questions and, on average, the formal interview lasted approximately twenty-five minutes with another twenty minutes taken up with informal discussion both before and after the interview. The researcher felt that this informal discussion was very beneficial, particularly from the perspective of ‘breaking the ice’ and helping the interviewees to relax. The recording of the interview, rather than taking

notes, allowed the researcher to pay more attention to the mannerisms and body movements of the interviewee and the researcher neither observed nor received any concerns from any interviewee with regard to the interview being recorded.

It should also be noted that the researcher, as a member of An Garda Síochána, knew the five Garda members. At no stage of his career had the researcher directly worked with four of those members. However, the researcher was currently working with one member. The researcher was conscious that such familiarity has the potential to introduce an element of bias into the research but the researcher is confident that this was not the case in this instance.

A variety of themes were identified from the responses to the interview questions and in the informal discussions both before and after the interviews. These themes are outlined hereunder:

1. Significant consultation with a wide range of stakeholders takes place in advance of the installation of any system,
2. Little analysis, if any, of crime trends or public order issues are undertaken in a periodic manner after installation,
3. Both the community and the local Gardaí support the systems,
4. All agree that the systems are worthwhile and have value from a crime deterrence and feelings of safety perspective,
5. There are conflicting opinions on whether the systems should be fully monitored or just recorded,
6. There is a need to examine the operational requirements of the systems to include functionality, technical specification, deployment, and operation.
7. The public have expressed little, if any, privacy or data protection issues after installation,
8. All agree with multi-agency approaches to dealing with problems within the community,
9. All agree that communities should take a greater and more active role with regard to their own welfare, safety and security.

4.3 Field Surveys (Questionnaire)

The researcher visited four locations wherein community-based CCTV systems were in operation. The locations were geographically spread across the country and included one small town, two medium sized towns and one city suburban area. Members of the public were randomly selected at each location and the researcher himself administered the questionnaire to each respondent. A total of one-hundred-and-sixty-one responses were obtained of which seventy-eight were from female respondents and eighty-three from male respondents. Table 5 hereunder provides a demographic breakdown of the respondents:

Table 5: Gender and Age Group of Respondents

	Age Group							Total
	Under 21	21 – 30	31 – 40	41 – 50	51 - 60	61 – 70	Over 70	
Male	11	16	12	19	12	8	5	83
Female	16	14	17	8	12	7	4	78
Total	27	30	29	27	24	15	9	161
Percent	16.8%	18.6%	18.0%	16.8%	14.9%	9.3%	5.6%	100%

4.3.1 Awareness and Knowledge

Five questions were posed to the respondents to determine if they were aware of the existence of the CCTV system in their area and also to gauge their knowledge and understanding of the system. The responses are presented in Figures 1 and 2 hereunder.

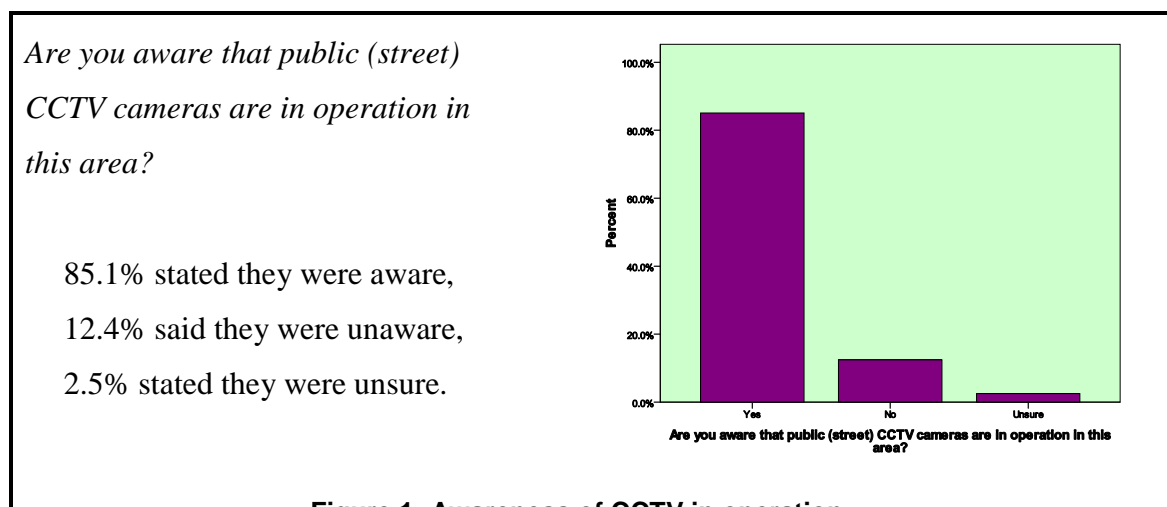


Figure 1: Awareness of CCTV in operation

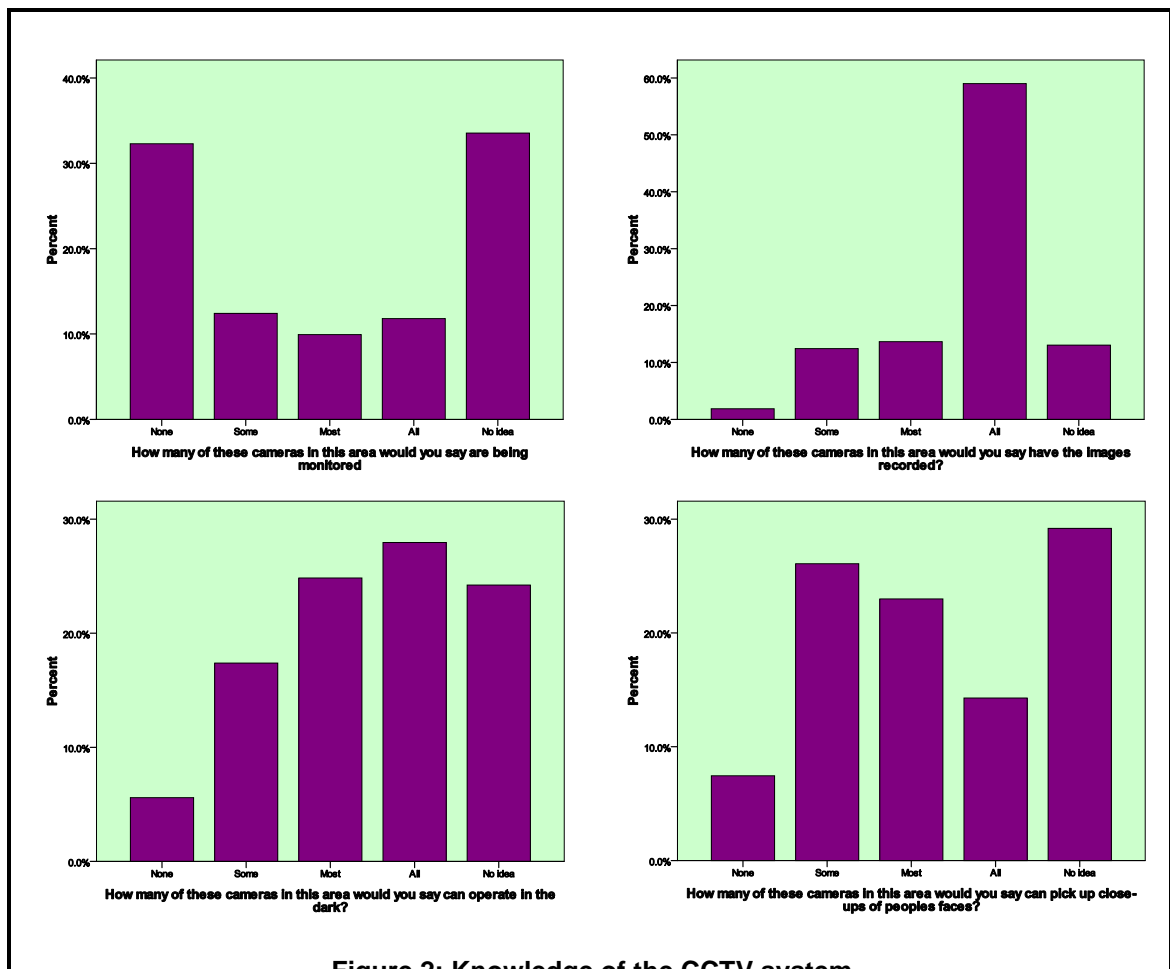


Figure 2: Knowledge of the CCTV system

How many of these cameras are being monitored?

33.5% had no idea, 32.3% thought none were monitored, 12.4% thought some were monitored, 11.8% thought all were monitored and 10.0% thought most were monitored.

How many of these cameras have the images / pictures recorded?

59.0% thought all were recorded, 13.7% thought most were recorded, 13.0% had no idea, 12.4% thought some were recorded and 1.9% thought none were recorded.

How many of these cameras can operate / see in the dark?

28.0% thought all could so operate, 24.8% thought most could, 24.2% had no idea, 17.4% thought some could and 5.6% thought none could.

How many of these cameras can pick up close-ups of people's faces?

29.2% had no idea, 26.1% thought some could, 23.0% thought most could, 14.3% thought all could and 7.5% thought none could.

4.3.2 Rationale for Installation

All respondents were given four possible reasons as to why a CCTV system should be erected in their area. The respondents were asked to rate in order of importance each of the four options. For ease of comparison, the responses to this question are presented in one overall figure hereunder (Figure 3).

The findings reveal that 45.3% of people questioned thought that the most important reason to install these cameras was to make people feel safe, 31.1% put catching people who commit a crime as the most important, 18.6% regarded the deterrence factor as the most important and 5.0% thought that these cameras were installed to spy on people.

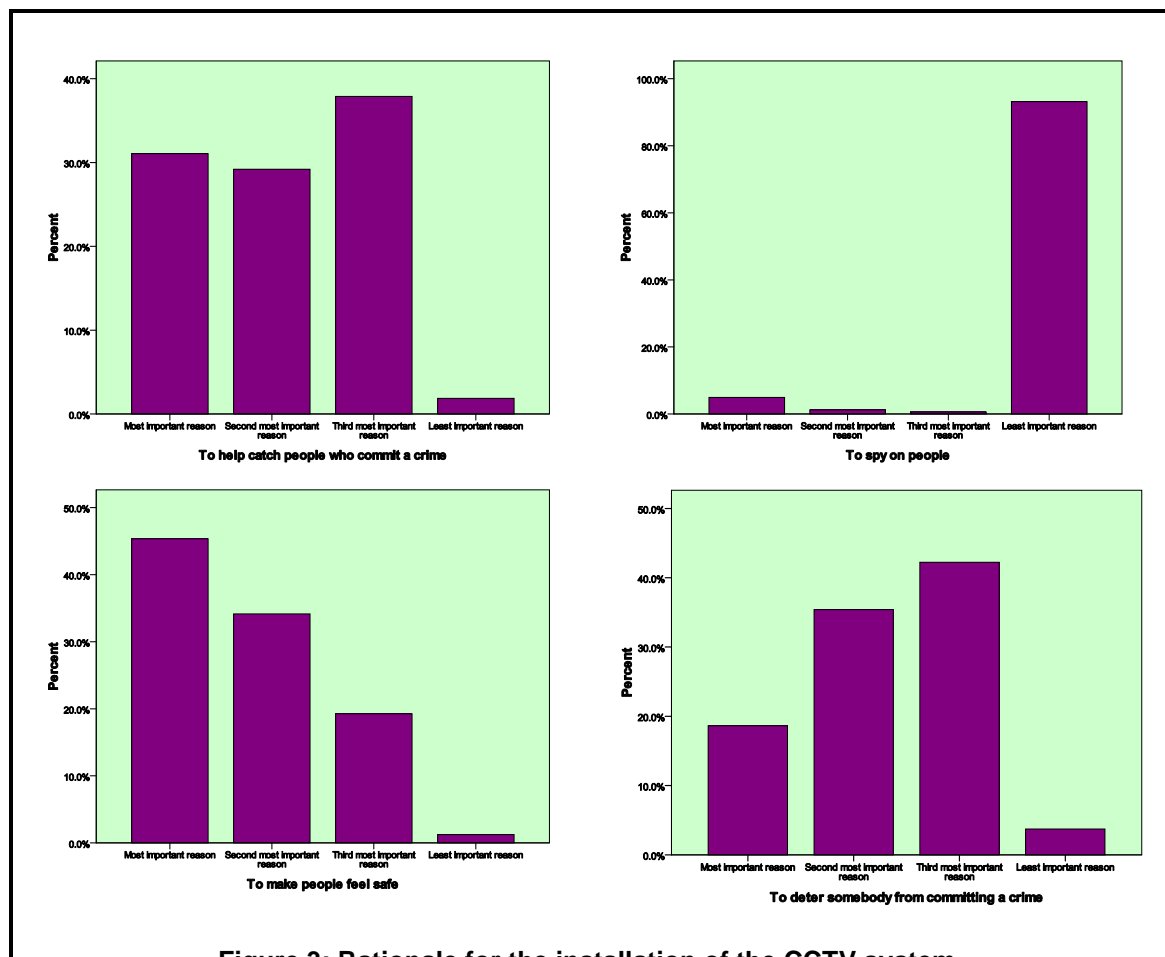
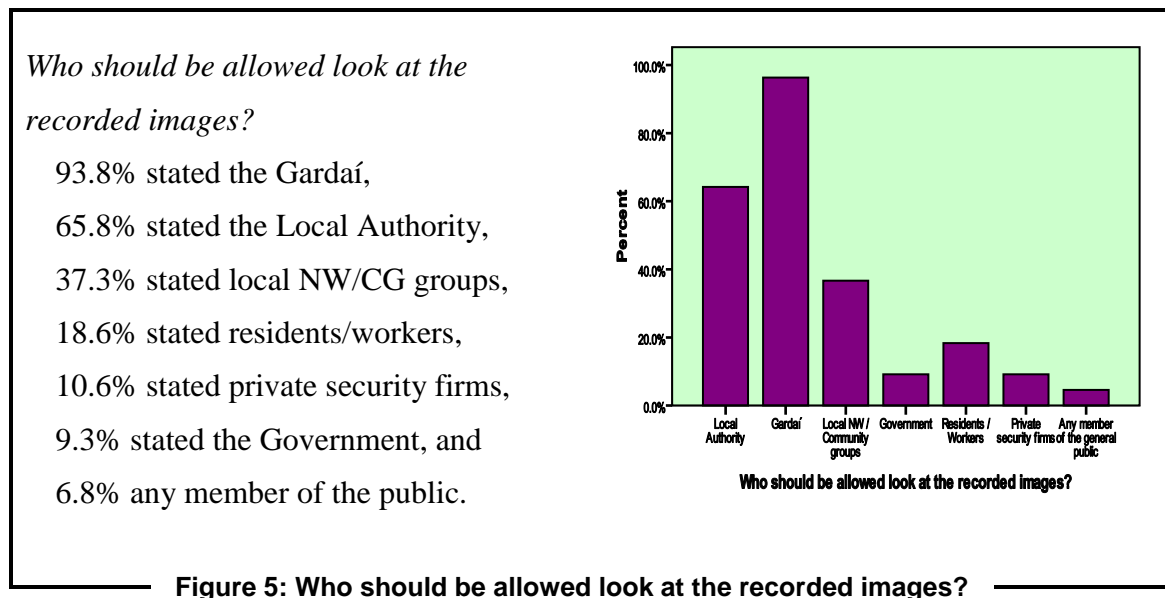
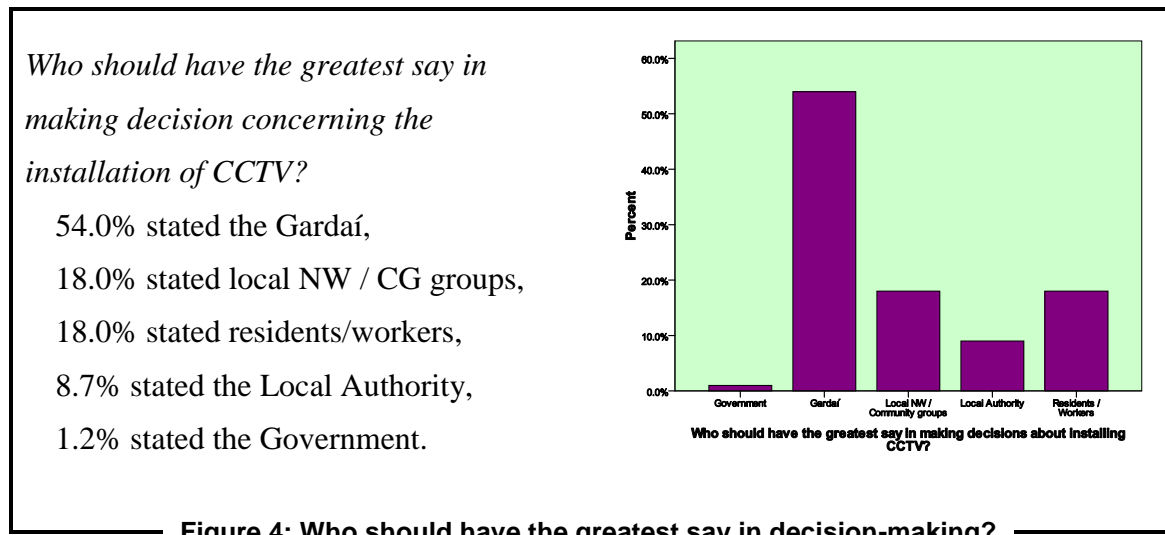


Figure 3: Rationale for the installation of the CCTV system

4.3.3 Decision Making and Access to Images

The respondents were asked two related questions as to (i) who should have the greatest say in deciding whether or not there is a need to erect a CCTV system within the area and (ii) who should be allowed access to the recorded images. The results to both questions are shown in Figures 4 and 5.



4.3.4 Views on Effectiveness of CCTV

The respondents were asked four questions to rate the effectiveness of the CCTV system and its impact on crime levels. Figures 6 and 7 present the responses.

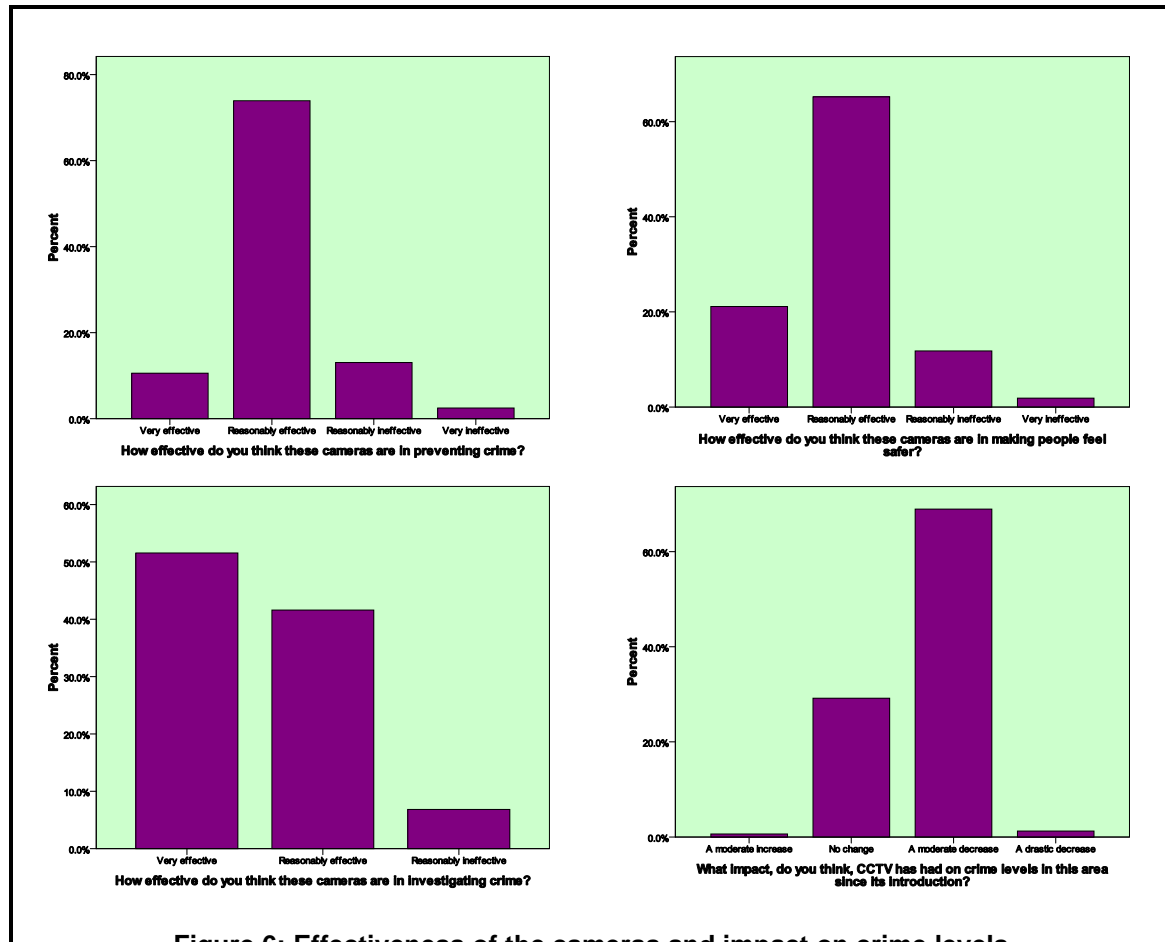


Figure 6: Effectiveness of the cameras and impact on crime levels

Effectiveness in Preventing Crime:

73.9% thought they were reasonably effective, 13.0% thought they were reasonably ineffective, 10.6% thought they were very effective and 2.5% thought they were very ineffective.

Effectiveness in Feeling Safer:

65.2% thought they were reasonably effective, 21.1% thought they were very effective, 11.8% thought they were reasonably ineffective and 1.9% thought they were very ineffective.

Effectiveness in Investigating Crime:

51.6% thought they were very effective, 41.6% thought they were reasonably effective, 6.8% thought they were reasonably ineffective and 0% thought they were very ineffective.

Impact on Crime Levels:

68.9% thought there was a moderate decrease, 29.3% thought there was no change, 1.2% thought there was a drastic decrease and 0.6% thought there was a moderate increase.

4.3.5 Feelings of Safety

The respondents were asked to comment on whether being in a CCTV covered area as against an area not covered by CCTV made a difference to their feelings of safety both (a) after dark, and (b) during daylight hours. Figure 7 hereunder present the results.

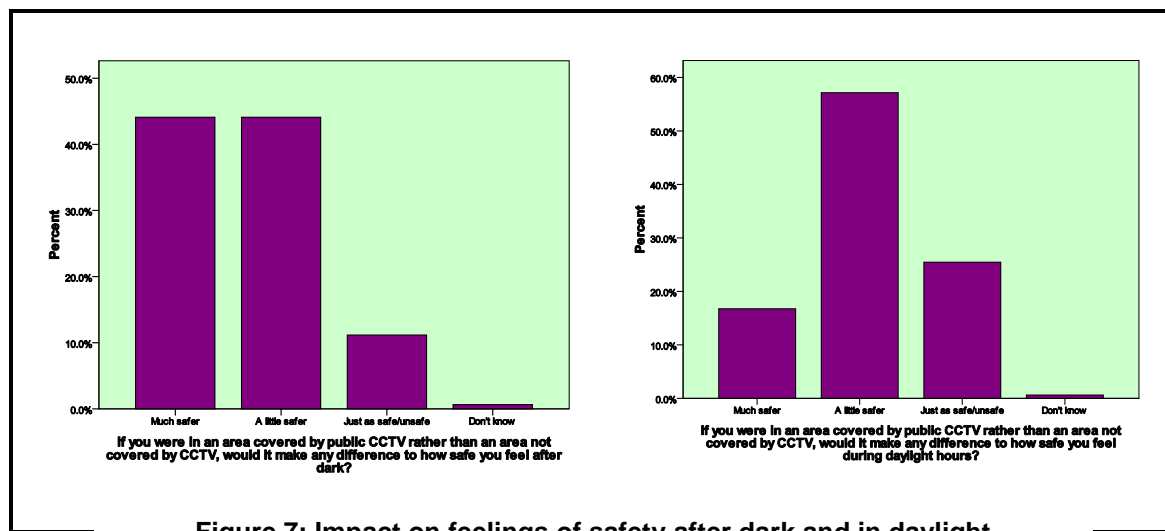


Figure 7: Impact on feelings of safety after dark and in daylight

After dark:

44.1% would feel much safer, 44.1% would feel a little safer, 11.2% would feel just as safe or unsafe and 0.6% did not know.

During daylight hours:

57.1% would feel a little safer, 25.5% would feel just as safe or unsafe, 16.8% would feel much safer and 0.6% did not know.

4.3.6 Concerns regarding Garda Attention and Resources

The respondents were asked if they were in any way concerned, that the presence of public (street) CCTV will result in lesser numbers of Gardaí or less patrols being performed by them. Figure 8 presents the responses.

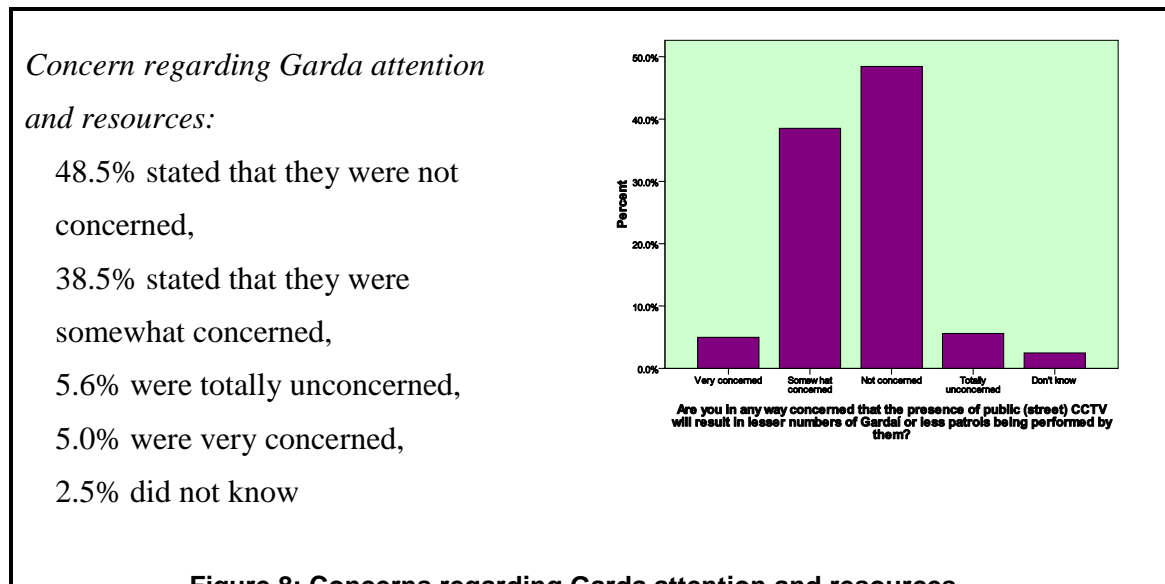


Figure 8: Concerns regarding Garda attention and resources

4.3.7 Empowerment

The respondents were asked whether community-based CCTV empowers communities and provides a degree of self-responsibilisation for their own safety and security? The responses are presented in Figure 9.

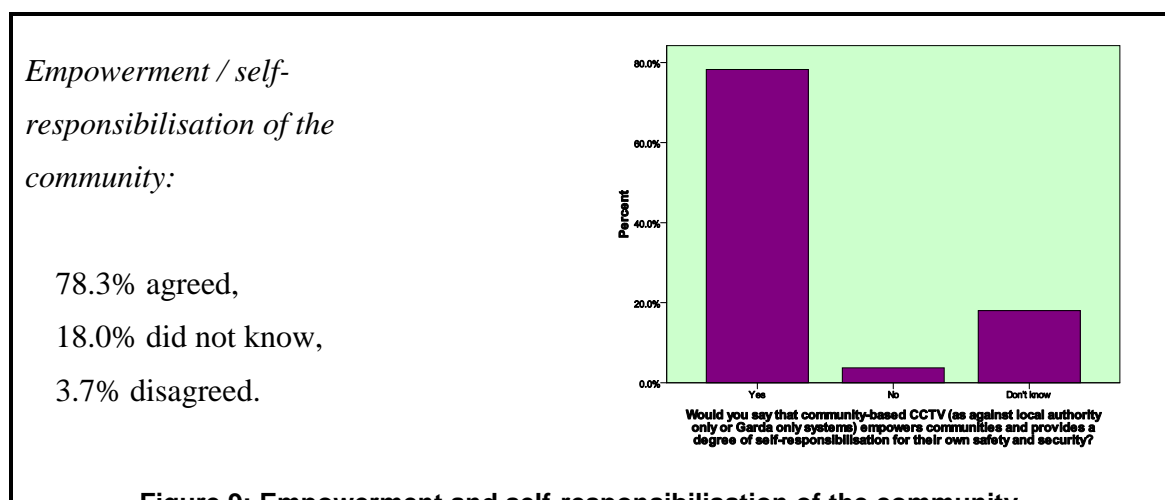


Figure 9: Empowerment and self-responsibilisation of the community

4.3.8 Support for CCTV

The respondents were asked three related questions (i) would you support the installation of extra cameras in the area? (ii) if you moved to another area, would you also like it to be covered by CCTV? and (iii) do you welcome, or not welcome, the presence of public (street) CCTV? Figure 10 presents the responses.

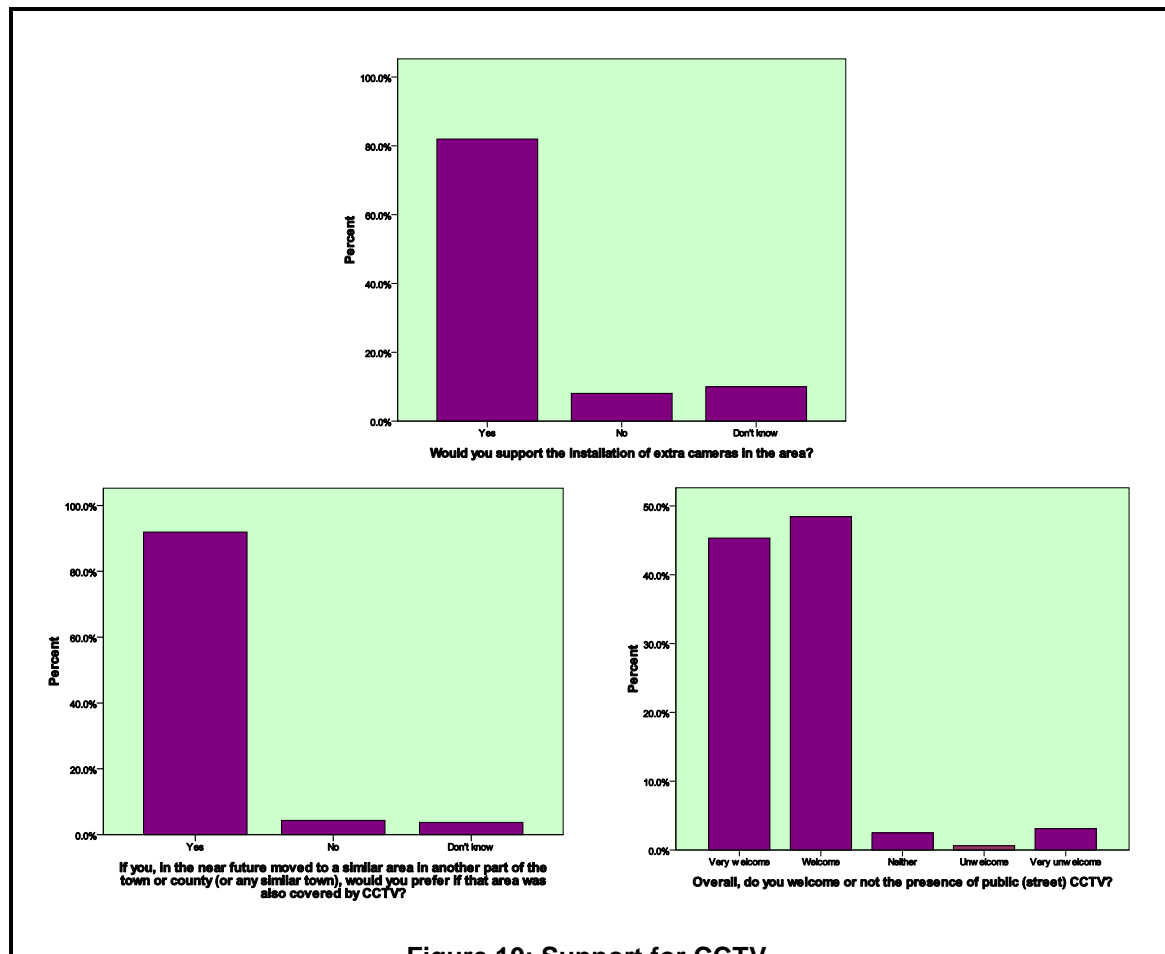


Figure 10: Support for CCTV

Installation of Extra Cameras:

82.0% stated that they would support the installation of extra cameras, 9.9% did not know if they would support or not, and 8.1% stated that they would not support the installation of extra cameras.

CCTV at change of address:

91.9% stated that they would prefer to have a CCTV system at the change of address, 4.3% stated that they would not prefer to have CCTV at the change of address, and 3.7% did not know.

Welcome for CCTV Presence:

48.5% stated that CCTV was welcome, 45.3% stated that it was very welcome, 3.1% stated it was very unwelcome, 2.5% stated that it neither welcome nor unwelcome, and 0.6% stated it was unwelcome.

4.3.9 General Views on CCTV

Ten statements, reflecting differing opinions on the use of CCTV, were posed to the respondents for the purpose of ascertaining their general views on the subject. Each respondent was asked to indicate their level of agreement or disagreement with each statement.

Fear of the presence of CCTV: Figure 11 presents the findings to these two related questions.

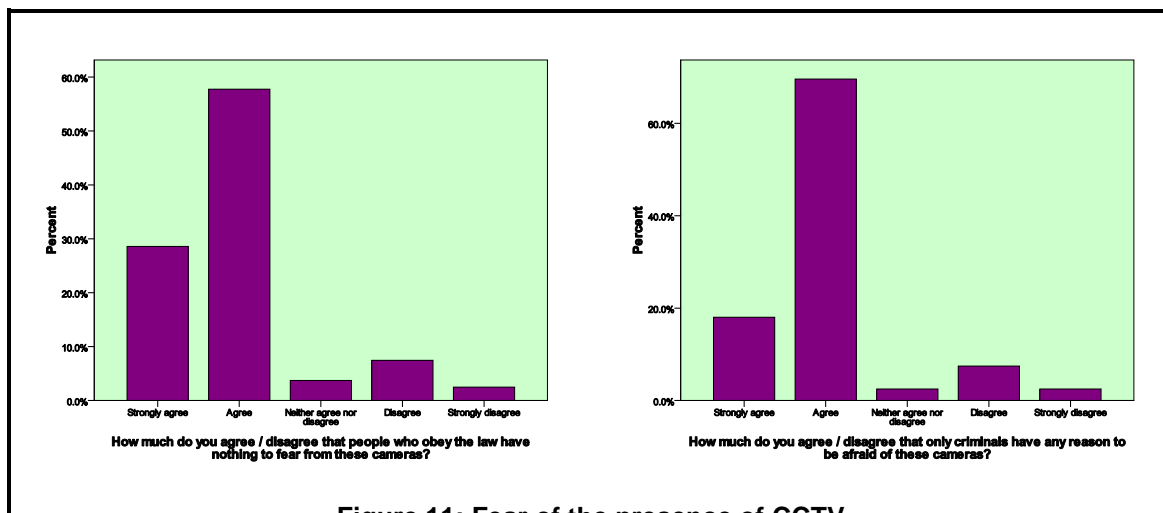


Figure 11: Fear of the presence of CCTV

‘People who obey the law have nothing to fear from these cameras’.

57.8% agreed with the statement, 28.5% strongly agreed, 7.5% disagreed, 3.7% neither agreed nor disagreed, and 2.5% strongly disagreed.

‘Only criminals have any reason to be afraid of these cameras’.

69.5% agreed with the statement, 18.0% strongly agreed, 7.5% disagreed, 2.5% neither agreed nor disagreed, and 2.5% strongly disagreed.

Invasion of Privacy / Threat to Civil Liberties: The responses to these two related questions are shown in Figure 12.

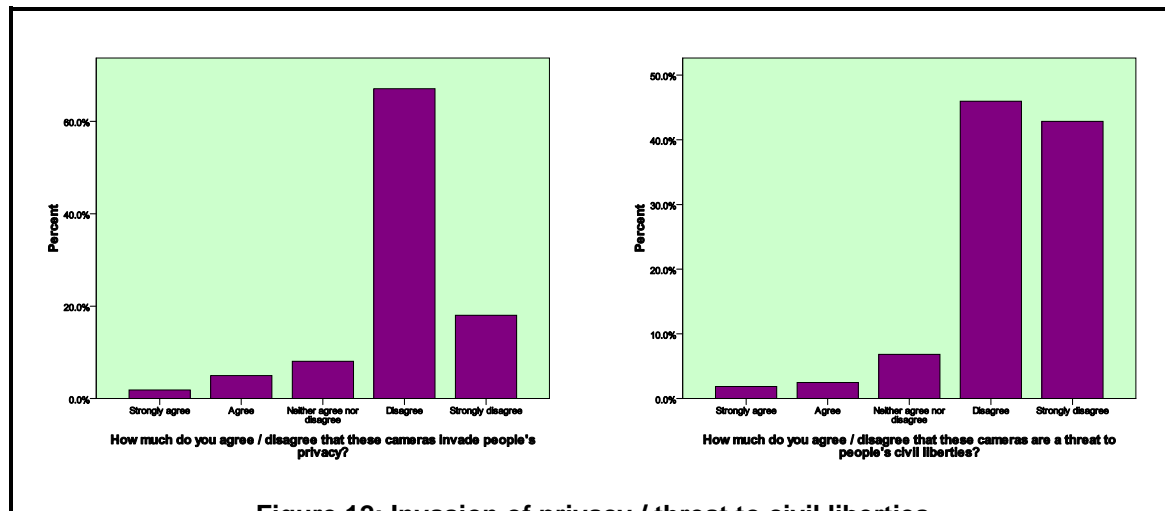


Figure 12: Invasion of privacy / threat to civil liberties

'These cameras invade people's privacy'.

67.1% disagreed, 18.0% strongly disagreed, 8.1% neither agreed nor disagreed, 5.0% agreed, 1.9% strongly agreed.

'These cameras are a threat to people's civil liberties'.

46.0% disagreed, 42.9% strongly disagreed, 6.8% neither agreed nor disagreed, 2.5% agreed, 1.9% strongly agreed.

Right to Know that Cameras are in Operation: The responses to these two related questions are shown in Figure 13.

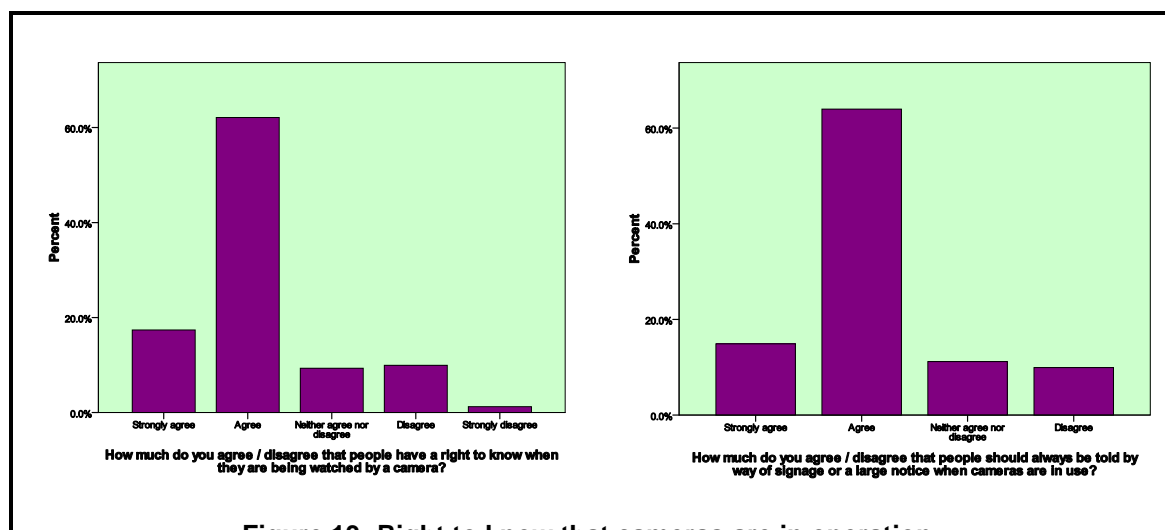


Figure 13: Right to know that cameras are in operation

'People have a right to know they are being watched by a camera'.

62.1% agreed, 17.4% strongly agreed, 9.9% disagreed, 9.4% neither agreed nor disagreed, 1.2% strongly disagreed.

'People should always be told by way of signage or a large notice when cameras are in use'.

64.0% agreed, 14.9% strongly agreed, 11.2% neither agreed nor disagreed, 9.9% disagreed, 0% strongly disagreed.

Spy Cameras that should be Banned: The responses to this question are shown in Figure 14.

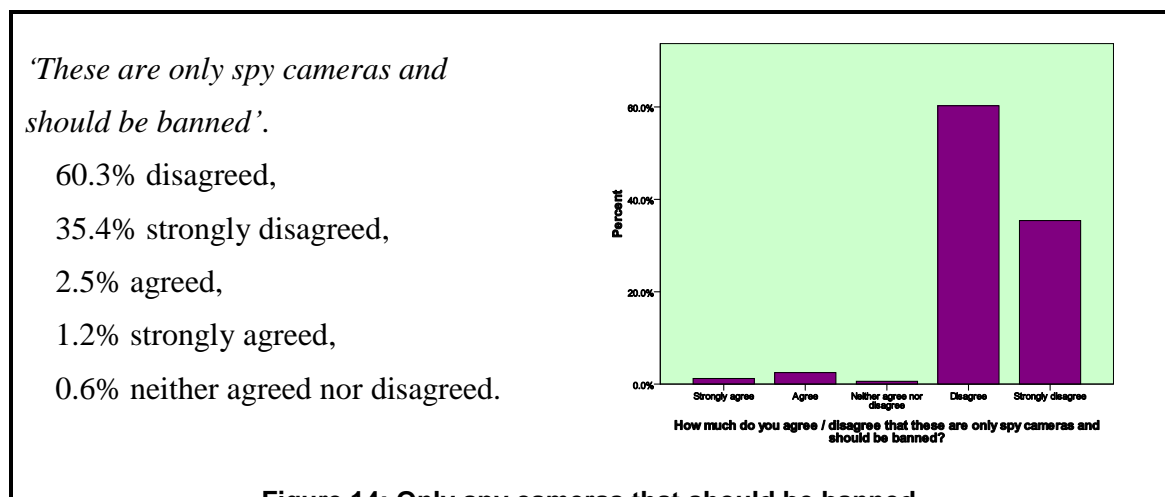


Figure 14: Only spy cameras that should be banned

More cameras, the better: The responses to this question are shown in Figure 15.

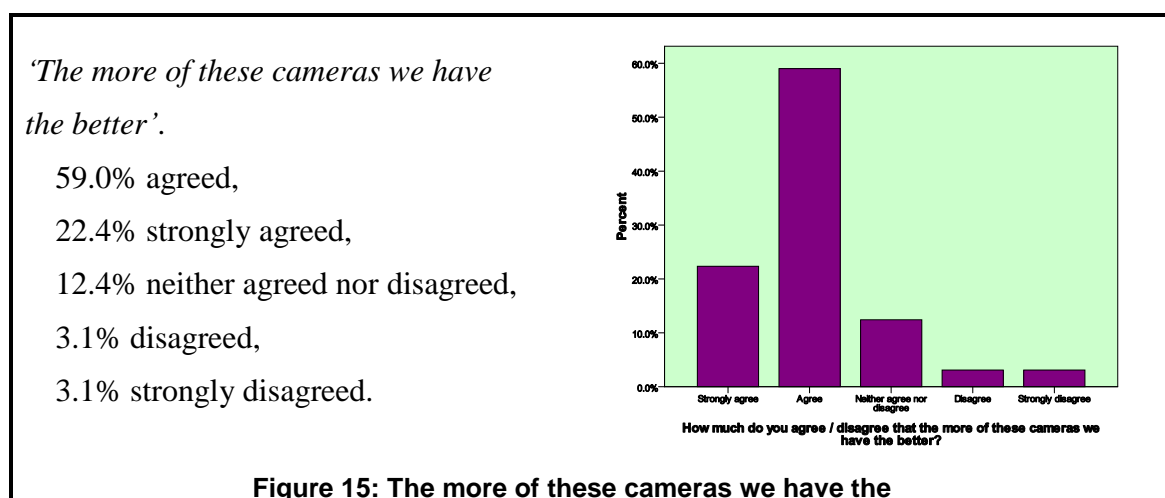


Figure 15: The more of these cameras we have the better

CCTV causes crime displacement: Figure 16 presents the responses to this statement.

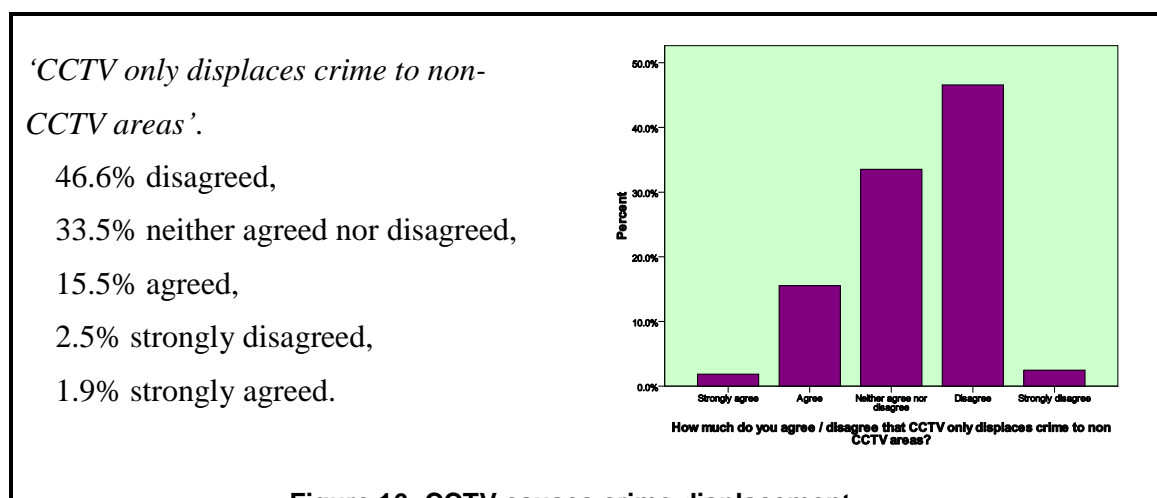


Figure 16: CCTV causes crime displacement

Covert camera use without peoples' knowledge: The responses to this statement are shown in Figure 17.

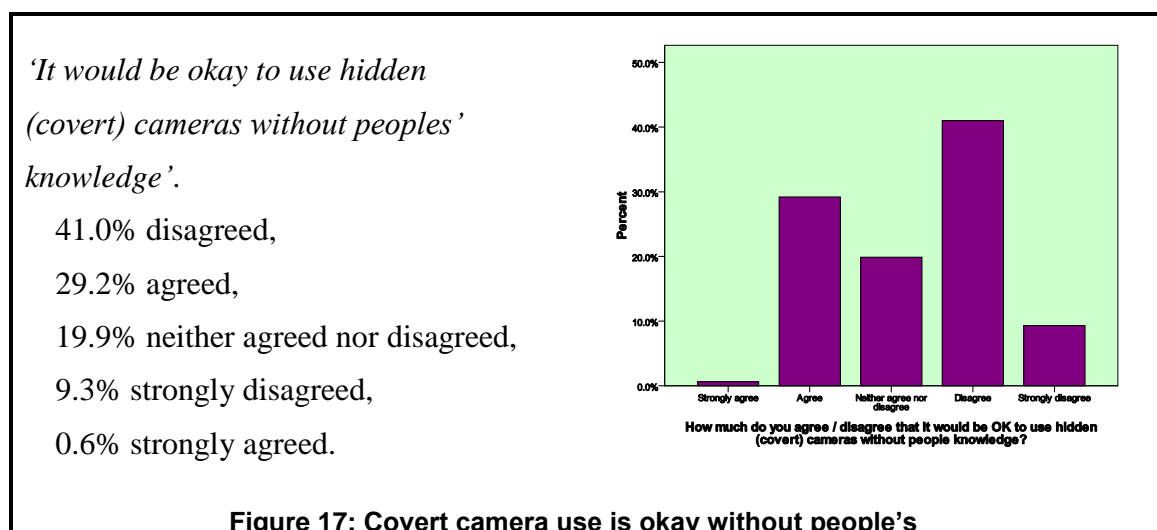


Figure 17: Covert camera use is okay without people's knowledge

4.4 Recorded Crime Data

The researcher sought, from the Central Statistics Office crime figures for each location for the period one year before the installation and operation of each system and one year post installation and operation. Tables 6 to 9 provide the figures.

Table No. 6: Yearly crime figures pre- and post-installation for location No. 1

Incident type	Pre-installation	Post-installation
Attempts / Threats to murder, assaults, harassments and related offences	10	8
Dangerous or negligent acts	4	8
Robbery, extortion and hijacking offences	0	0
Theft and related offences	21	31
Fraud, deception and related offences	0	2
Controlled drug offences	1	4
Weapons and explosives offences	1	3
Damage to property and to the environment	24	5
Public order and other social code offences	28	19
Burglary and related offences	3	5

Table No. 7: Yearly crime figures pre- and post-installation for location No. 2

Incident type	Pre-installation	Post-installation
Attempts / Threats to murder, assaults, harassments and related offences	70	60
Dangerous or negligent acts	62	61
Robbery, extortion and hijacking offences	1	2
Theft and related offences	147	221
Fraud, deception and related offences	21	31
Controlled drug offences	55	35
Weapons and explosives offences	6	12
Damage to property and to the environment	132	117
Public order and other social code offences	198	220
Burglary and related offences	49	35

Table No. 8: Yearly crime figures pre- and post-installation for location No. 3

Incident type	Pre-installation	Post-installation
Attempts / Threats to murder, assaults, harassments and related offences	74	68
Dangerous or negligent acts	58	36
Robbery, extortion and hijacking offences	2	2
Theft and related offences	134	118
Fraud, deception and related offences	23	15
Controlled drug offences	49	35
Weapons and explosives offences	9	7
Damage to property and to the environment	110	117
Public order and other social code offences	164	138
Burglary and related offences	73	59

Table No. 9: Yearly crime figures pre- and post-installation for location No. 4

Incident type	Pre-installation	Post-installation
Attempts / Threats to murder, assaults, harassments and related offences	391	356
Dangerous or negligent acts	307	246
Robbery, extortion and hijacking offences	85	101
Theft and related offences	1943	1639
Fraud, deception and related offences	76	112
Controlled drug offences	698	644
Weapons and explosives offences	82	124
Damage to property and to the environment	1070	997
Public order and other social code offences	924	938
Burglary and related offences	992	1008

4.5 Chapter Summary

In this chapter the various findings of the research were outlined. The findings were generally presented in either tabular or chart format. The researcher opted for these formats so that the reader can easily observe and understand the findings which will be analysed in the next chapter.

CHAPTER 5

Discussion and Analysis of Findings

5.1 Introduction

In this chapter the researcher presents a discussion and analysis of the findings from the research. It is clear from the findings that the use of community-based CCTV is complex and not without its issues and concerns. This chapter will endeavour to analyse these issues, provoke discussion and provide the basis for a number of recommendations in the final chapter.

5.2 Interviews

The eight interviews provided the researcher with a very worthwhile and significant insight into the operation of community-based CCTV systems at local level. All interviewees were extremely knowledgeable and forthcoming with their answers and opinions. All agreed that the systems were worthwhile and had the support of both the community and the local Gardaí. However, it should be noted that no interviewee, including the Garda members, could provide any empirical evidence to support their beliefs that the systems were worthwhile from crime prevention and/or increased feelings of safety perspectives, other than anecdotal.

While significant consultation with the community and relevant stakeholders including analyses of crime levels were carried out prior to installation, all interviewees stated that no further analyses had been carried out post-installation. Similarly, no evaluations were carried out on the operation and effectiveness of the system post-installation and no interviewee was aware of any audit being carried out on the operation and administration of the systems from a data protection or other legislative concern.

All interviewees acknowledged that they had not received any complaints from the public with regard to the data protection issues after the installation and commencement of the operation of the systems. Most acknowledged that there were some concerns expressed at the consultation stage prior to taking the decision to install. These were generally of a minor nature; for example, one concern that was raised in one

location originated from publicans who felt that the Gardaí would use the cameras to observe and catch people leaving pubs after closing time. All of these concerns were resolved at the initial consultation stage prior to installation.

Most interviewees believed that there was sufficient training given for data controllers and operators / administrators of the systems. The need to keep up-to-date with technological advances in CCTV and the type of and functionality of cameras was highlighted by some. A number felt that the choice of system as outlined in the technical specifications document was restrictive and indeed one interviewee outlined how, at a significant extra cost to themselves, when deciding on their system, went beyond the standard remit to install automatic number plate recognition (ANPR) cameras which they believed would enhance the functionality of the system and provide added benefits from a crime investigation perspective.

All interviewees agreed that multi-agency approaches involving the community and all relevant stakeholders is the way forward for dealing with most issues in the community. They all regarded community-based CCTV as an example of such cooperation.

5.3 Field Surveys (Questionnaire)

The purpose of the field surveys was to ascertain the knowledge and opinions that members of the community had in relation to the establishment, operation and effectiveness of their community-based CCTV system.

5.3.1 Awareness and Knowledge

The majority (85.1%) of persons interviewed in the field study were aware of the existence of the CCTV system in their area. However, when asked questions relating to their knowledge of the system, the results were less certain. The majority (59%) of persons thought that all cameras were recorded, which is in fact the case. With regard to monitoring, there was an almost equal distribution of opinion between either none being monitored or not having an idea. Finally in relation to the latter two categories (ability to operate in darkness and obtain close-ups of faces), there were significant divisions of opinion. There were no significant differences across the gender or age categories.

The conclusion from this section is that while most people are aware of the CCTV system being in place, their knowledge of the system, its functionality and how it operates is vague.

5.3.2 Rationale for Installation

The findings reveal that 45.3% of people questioned thought that the most important reason to install these cameras was to make people feel safe, 31.1% put catching people who commit a crime as the most important, 18.6% regarded the deterrence factor as the most important and 5.0% thought that these cameras were installed to spy on people. More females (56.4%) than males (34.9%) rated making people feel safe as the most important reason to install as did all persons (100%) over 70 years of age.

5.3.3 Decision Making and Access to Images

The majority (54%) of respondents stated that the Gardaí should have the greatest say in making the decision to install a CCTV system in an area. Opinion was equally divided (18% each) on both Neighbourhood Watch / Community Groups and local residents or workers. What was surprising was the low figure of 8.7% for the local authority, particularly as the local authority is the Data Controller for all systems.

With regard to who should be able to see the recorded images, many respondents opted for the minimum number of available options. To explain, by that I mean that they selected only one or two categories of person or group from the seven available choices. As can be seen from the figures the vast majority (93.8%) of respondents stated that the Gardaí should be allowed look at the recorded images, 65.8% for the local authority and a further 37.3% for Neighbourhood Watch / Community Groups and 18.6% for residents and workers. The higher figure for the local authority is again surprising, particularly when cross-referenced against the return of only 8.7% for the decision-making question.

5.3.4 Views on Effectiveness

The majority of people thought that CCTV were either very or reasonably effective in preventing crime (84.5%), making people feel safer (86.3%) and investigating crime (93.2%). The latter category was, not surprisingly, the highest with 51.6% opting for

very effective as against 10.6% and 21.1% respectively for the other two categories. From a gender perspective, nearly twice as many males thought the cameras were very effective in preventing crime, otherwise there were little differences in the responses between genders. There were also little differences in the responses from an age category perspective, although the results did show an upward trend with advancing age towards the very effective belief.

5.3.5 Feelings of Safety

The vast majority (88%) of respondents stated that they would feel a little or much safer after dark in an area covered by CCTV. There was less of a majority for daylight hours with 74% stating they would feel a little or much safer. More female respondents suggested that they felt much safer than male respondents and equally more male respondents suggested that they felt a little safer. It should be noted, however, that the total percentages of males and females when the two categories were combined were effectively equal. From an age category perspective, there was a significant majority feeling much safer in the two older age categories of 61-70 years and over 70 years.

5.3.6 Concerns regarding Garda Attention and Resources

Over half the respondents stated that they were not concerned (48.4%) or totally unconcerned (5.6%) that the presence of cameras in the area would reduce the number of local Gardaí or Garda patrols in the area. However a substantial number did express some concerns with 38.5% being somewhat concerned and 5.6% being very concerned. Those that did express concerns about Garda attention attributed the current economic difficulties and Government cutbacks resulting in reduced services as the main reasons behind their concerns. More females (48.7%) than males (38.5%) had concerns, while higher percentages not concerned were observed with the lower age categories.

5.3.7 Empowerment

The vast majority (78%) of respondents agreed that community-based CCTV empowered communities. However, almost one fifth of respondents (18%) neither agreed nor disagreed which the researcher attributes, from conversations with the respondents, to a number of factors including a lack of understanding of the question and the need for more time to reflect on it.

5.3.8 *Support for CCTV*

Support for the use of CCTV cameras was strong among the respondents with 82% support for the installation of extra cameras, 92% stating that, should they change address, they would like to have a CCTV system at their new location. The overall welcome for CCTV in the locality was 94%. Those that did not welcome CCTV were predominantly in the very unwelcome category (3.1% as against 0.6%).

5.3.9 *General Views on CCTV*

Ten statements, each of which described ways in which CCTV might impact on them, were read to all respondents with the objective of determining general perceptions and attitudes to CCTV. Each respondent was asked to rate how much they agreed or disagreed with each statement on a five-point scale from strongly agree to strongly disagree. The responses provided are analysed hereunder.

According to Gill et al (2007), a key argument of those opposed to the use of CCTV systems in public areas is the implication of surveillance on the issues of human rights and civil liberties. Their study found that, before installation, 17% of people surveyed thought CCTV invaded people's privacy and that this figure dropped to 15% after installation. In this research study, the majority (85%) of respondents stated that they did not believe that CCTV invaded one's privacy. A similar majority (89%) agreed or strongly agreed that the use of CCTV cameras did not represent a threat to people's civil liberties. A related statement '*These are only spy cameras and should be banned*' produced results that showed 95% of people disagreeing or strongly disagreeing with the statement. These findings therefore suggest that any anxieties relating to civil liberties are unfounded and the majority of people have no issues with CCTV from that perspective.

Potential fears relating to the presence of CCTV cameras were also dismissed by the respondents. 86% of respondents either agreed or strongly agreed that 'people who obey the law have nothing to fear from these cameras'. These views were supported by the views expressed in relation to the second statement 'Only criminals have any reason to be afraid of these cameras' in which the majority (87%) either agreed or strongly agreed with the statement. This apparent lack of concern regarding the presence of cameras in their areas was conditional, it would appear, on the people being aware that

CCTV was in use in the area. In responding to the following two statements '*People have a right to know they are being watched by a camera*' and '*People should always be told by way of signage or a large notice when cameras are in use*', the results were that eighty percent agreed or strongly agreed with the former statement while seventy nine percent agreed or strongly agreed with the latter.

The statement '*The more of these cameras we have the better*' showed strong support for the use of CCTV. Eighty one percent of respondents either agreed or strongly agreed with the statement. However, the statement '*It would be okay to use hidden (covert) cameras without peoples' knowledge*' provided mixed results. Fifty percent of the respondents either disagreed or strongly disagreed with the statement, thirty percent agreed or strongly agreed and twenty percent neither agreed nor disagreed with the statement. This statement was peculiar in that significant numbers of respondents sought clarification as to the meaning and context of the statement. The researcher provided examples of situations where covert cameras might be used and endeavoured to do so in an un-biased manner without exerting any influence of the respondents or portraying any particular bias of his own.

The final statement '*CCTV only displaces crime to non-CCTV areas*' showed similar mixed results with nearly half (49%) disagreeing or strongly disagreeing, thirty three percent neither agreeing nor disagreeing and eighteen percent either agreeing or strongly agreeing.

5.4 Recorded Crime Data

The overwhelming majority of studies on assessing the effectiveness and impact of CCTV tend to significantly focus on crime statistics for the pre- and post-installation periods (Brown 1995; Ditton and Short 1999; Gill 2006; Welsh and Farrington 2008). There are many variables to consider including crime displacement and diffusion of benefits. Appelbe (2008) asserts that a critical element in assessing the impact of CCTV and meeting its objectives is the collection of appropriate data. Suitable and comparable control areas need to be identified and selected. Crime figures pre- and post-installation are not sufficient in themselves and evaluators must go beyond crime figures to obtain a more complete understanding of the effectiveness of CCTV.

Nevertheless, crime statistics are an important yardstick for measuring the effectiveness and impact of CCTV. For this study, the recorded crime data for each of

the four locations was provided by the Central Statistics Office. The figures sought were for the period one year before installation of the community-based CCTV system and one year after installation. It should be noted that the figures relate to categories of crime rather than individual criminal offences. For example, under theft and related offences, different types of theft are included such as theft from the person, theft from shop, theft from vehicle and so forth. This has obvious implications and has limited the scope of the analysis. Furthermore, the figures provided relate to the general location wherein the CCTV system is installed rather than individual streets and estates where specific cameras are operating.

The results are inclusive. Contrasting results have been obtained in different locations. Some crime categories have decreased in certain locations and increased in others. For example, the category 'Damage to property and to the environment' decreased in three locations and increased in one location. The percentage decreases were 79.2%, 11.4% and 6.8% while the increase was 6.4%. Similarly, the category 'Public order and other social code offences' decreased in two locations and increased in the other two locations; the decrease percentages were 32.1% and 15.9% while the increases were 11.1% and 1.5%. Table 10, colour coded for ease of reference and comparison, provides a summary outlining the crime figures and the percentage increases and decreases for each crime category and location.

Table No. 10: Comparison table of crime figures per location

Crime Category	Location No. 1			Location No. 2			Location No. 3			Location No. 4		
	Installation		Percent Increase/ decrease	Installation		Percent Increase/ decrease	Installation		Percent Increase/ decrease	Installation		Percent Increase/ decrease
	pre-	(post-)		pre-	(post-)		pre-	(post-)		pre-	(post-)	
Attempts / Threats to murder, assaults, harassments and related offences	10	(8)	-20.0%	70	(60)	-14.3%	74	(68)	-8.1%	391	(356)	-9.0%
Dangerous or negligent acts	4	(8)	+100%	62	(61)	-1.6%	58	(36)	-37.9%	307	(246)	-19.9%
Robbery, extortion and hijacking offences	0	(0)	0%	1	(2)	+100%	2	(2)	0%	85	(101)	+18.8%
Theft and related offences	21	(31)	+47.6%	147	(221)	+50.3%	134	(118)	-11.9%	1943	(1639)	-15.6%
Fraud, deception and related offences	0	(2)	N/A	21	(31)	+47.6%	23	(15)	-34.8%	76	(112)	+47.4%
Controlled drug offences	1	(4)	+300%	55	(35)	-36.4%	49	(35)	-28.6%	698	(644)	-7.7%
Weapons and explosives offences	1	(3)	+200%	6	(12)	+100%	9	(7)	-22.2%	82	(124)	+51.2%
Damage to property and to the environment	24	(5)	-79.2%	132	(117)	-11.4%	110	(117)	+6.4%	1070	(997)	-6.8%
Public order and other social code offences	28	(19)	-32.1%	198	(220)	+11.1%	164	(138)	-15.9%	924	(938)	+1.5%
Burglary and related offences	3	(5)	+66.6%	49	(35)	-28.6%	73	(59)	-19.2%	992	(1008)	+1.6%

What these figures show is that overall crime statistics for the general area are an insufficient means of determining the impact of CCTV. If one were to be selective and take, as an example, location No. 3 one could be forgiven for believing that CCTV is extremely effective in preventing and reducing crime. In this instance, crime figures have decreased in eight of the ten categories, with no change in one category and a small rise of 6.4% in the remaining category. What is particularly interesting about the latter category is that in each of the other three locations, this category of crime actually decreased. It should also be noted that the large increases in some crime categories, where figures significantly in excess of 100% were recorded is also misleading as the actual count or number of these crimes is so low that any increase or decrease would reflect significant percentage increases or decreases.

The conclusion therefore is that while crime statistics are important in any CCTV evaluation studies, they must be considered as one element of a robust evaluation process that takes cognisance of other mechanisms and factors. A large scale scientific and longitudinal study on crime levels within each area is highly desirable and necessary. Such a study needs to be comprehensive - down to individual street level – coupled with appropriate control areas to compare the effects of displacement and diffusion of benefits.

5.5 Chapter Summary

The findings suggest that there is strong support for CCTV in the community. The majority of respondents do not appear to have any concerns from a civil liberties or invasion of privacy perspective. Most respondents suggested that they feel safer in areas with CCTV coverage and considered *making people feel safer* as a significant reason to install CCTV systems. However, it is also clear from the findings that there is little research into the effectiveness and impact of community-based CCTV in Ireland and no robust evaluation or auditing process has been established post-installation.

CHAPTER 6

Conclusions and Recommendations

6.1 Introduction

While CCTV systems in public areas have been in existence for a considerable period, the community-based system currently in use in Ireland is a relatively new phenomenon having been established in 2005 with initial start-ups commencing from 2006/7. The purpose of this research study was to explore community-based CCTV systems with a view to determining their value within the community from the perspectives of public support, impact on crime, value as both a crime prevention measure and as an aid to policing.

We now live in a very much surveilled society. Technology is advancing exponentially. In particular, the advent of the internet, social networking sites, digital photography and ‘smartphones’ have enabled us to pass photos and video images of our personal, business and social lives to all and sundry, and across all borders. These technological advances we use every hour, every day. We have become immune to their use and complacent about some of the dangers therein. This casual acceptance has facilitated, in the opinion of this researcher, the acceptance and rise of CCTV in society today. It is now up to us, as a society, to see how we can best utilise such technology to our advantage from a crime prevention and welfare/safety perspective.

6.2 Limitations

There are now in excess of fifty community-based schemes in the State. For a variety of reasons, including time and resources (both financial and personnel), this study was limited to examining four such schemes which were selected by the researcher to provide as broad a spectrum of the existing schemes as possible. The four locations were broadly spread throughout the country and included three rural towns of varying size and population and one city suburban area. The research was carried out by one individual only. Eight persons with an intimate knowledge of community-based CCTV systems were interviewed and a further one-hundred-and-sixty-one persons were consulted by questionnaire in field studies at each location. Recorded crime figures

(one year prior to installation and one year after) were compared for each location studied.

This study was not a meta-analysis and is limited by the size and numbers involved. However, it does present a picture that gives the reader a glimpse of the issues and complexities surrounding community-based CCTV in Ireland.

6.3 Conclusions

Community-based CCTV is a child of our times; conceived in the heady old days of the Celtic Tiger but growing and developing in its fall-out. It is only seven years since its roll-out but much has happened in this country in the intervening period. As with human development, the society in which we live is constantly evolving. The current turmoil in global economic and financial markets, coupled with the collapse of the 'Celtic Tiger' in Ireland, has overwhelmingly changed the political, economic and cultural environment in this country. Government cutbacks in spending, increased taxes, increased numbers out of work, reduced numbers and services in the civil and public service have all had significant ramifications for the citizen. Policing is changing, Garda numbers are diminishing and Garda stations are closing. The Government is constantly seeking means to cut costs but at the same time continue to deliver the same level of service as before.

Is community-based CCTV a means to fulfilling this philosophy of government? The answer to that is debatable but what this study has shown is that it is at least worthy of examination and research. CCTV is not the panacea for all crime problems but, whether we want to believe it or not, it is here and it is not going away. Appelbe (2008) notes that:

The arrival of the community-based CCTV scheme poses a golden opportunity to allocate proper resources and engage in appropriate data collection so as to accurately assess the impact of CCTV on crime in Ireland and thereby ensure efficient and effective future development (2008, p. 5).

Unfortunately, it is clear from this study that the aforementioned sentiments expressed by Appelbe have not been acted upon. The necessity is there but will it be grasped? The harsh reality and uncertainties of the current economic and political climate are likely to stymie any progress on fulfilling those sentiments.

6.4 Recommendations

The researcher makes the following recommendations based on the findings from this research study, the learning obtained from the literature review and from general observations made when visiting and examining the locations selected for the study.

1. Careful consideration needs to be given as to what exactly constitutes the success or otherwise of a community-based CCTV system.
2. Appropriate data needs to be gathered and interpreted as an integral part of any determination of success or otherwise.
3. An appropriate evaluation mechanism needs to be drawn up to review and determine the impact and effectiveness of existing and future schemes.
4. All existing community-based CCTV systems should be immediately examined and assessed to determine if they are fit for purpose and effective in their primary objectives.
5. All community-based CCTV schemes should be evaluated on a yearly basis to ensure that they are fit for purpose and fulfilling their primary objectives with regard to the community they address. Such post-installation evaluations should be mandatory.
6. The guidance documents, in particular the code of practice and the technical specifications, need to be immediately reviewed and updated as appropriate to take into account changes in best practice, Court judgements and advances in technology.
7. The guidance documents should be reviewed, as a minimum, on a yearly basis and earlier where necessary.
8. The use of CCTV in an area should be highlighted and publicised so as to inform the public and act as a deterrent to criminal behaviour.
9. Community-based schemes should be periodically audited to ensure that they are operating as expected and in full compliance of data protection and other governing legislation and regulation. This should be mandatory.
10. The remit of the CCTV Advisory Group should be changed to take cognisance of these recommendations.

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25 Techniques of Situational Crime Prevention

Increase the Effort	Increase the Risks	Reduce the Rewards	Reduce Provocations	Remove Excuses
1. Target harden <ul style="list-style-type: none"> Steering column locks and immobilisers Anti-robbery screens Tamper-proof packaging 	6. Extend guardianship <ul style="list-style-type: none"> Take routine precautions: go out in group at night, leave signs of occupancy, carry phone Cocoon" neighborhood watch 	11. Conceal targets <ul style="list-style-type: none"> Off-street parking Gender-neutral phone directories Unmarked bullion trucks 	16. Reduce frustrations and stress <ul style="list-style-type: none"> Efficient queues and polite service Expanded seating Soothing music/muted lights 	21. Set rules <ul style="list-style-type: none"> Rental agreements Harassment codes Hotel registration
2. Control access to facilities <ul style="list-style-type: none"> Entry phones Electronic card access Baggage screening 	7. Assist natural surveillance <ul style="list-style-type: none"> Improved street lighting Defensible space design Support whistleblowers 	12. Remove targets <ul style="list-style-type: none"> Removable car radio Women's refuges Pre-paid cards for pay phones 	17. Avoid disputes <ul style="list-style-type: none"> Separate enclosures for rival soccer fans Reduce crowding in pubs Fixed cab fares 	22. Post instructions <ul style="list-style-type: none"> "No Parking" "Private Property" "Extinguish camp fires"
3. Screen exits <ul style="list-style-type: none"> Ticket needed for exit Export documents Electronic merchandise tags 	8. Reduce anonymity <ul style="list-style-type: none"> Taxi driver IDs "How's my driving?" decals School uniforms 	13. Identify property <ul style="list-style-type: none"> Property marking Vehicle licensing and parts marking Cattle branding 	18. Reduce emotional arousal <ul style="list-style-type: none"> Controls on violent pornography Enforce good behavior on soccer field Prohibit racial slurs 	23. Alert conscience <ul style="list-style-type: none"> Roadside speed display boards Signatures for customs declarations "Shoplifting is stealing"
4. Deflect offenders <ul style="list-style-type: none"> Street closures Separate bathrooms for women Disperse pubs 	9. Utilize place managers <ul style="list-style-type: none"> CCTV for double-deck buses Two clerks for convenience stores Reward vigilance 	14. Disrupt markets <ul style="list-style-type: none"> Monitor pawn shops Controls on classified ads. License street vendors 	19. Neutralize peer pressure <ul style="list-style-type: none"> "Idiots drink and drive" "It's OK to say No" Disperse troublemakers at school 	24. Assist compliance <ul style="list-style-type: none"> Easy library checkout Public lavatories Litter bins
5. Control tools/ weapons <ul style="list-style-type: none"> "Smart" guns Disabling stolen cell phones Restrict spray 	10. Strengthen formal surveillance <ul style="list-style-type: none"> Red light cameras Burglar alarms Security guards 	15. Deny benefits <ul style="list-style-type: none"> Ink merchandise tags Graffiti cleaning Speed humps 	20. Discourage imitation <ul style="list-style-type: none"> Rapid repair of vandalism V-chips in TVs Censor details of modus operandi 	25. Control drugs and alcohol <ul style="list-style-type: none"> Breathalyzers in pubs Server intervention Alcohol-free events

Clarke, R.V. and Eck, J (2003)

Technical Specification

Community-based CCTV Schemes

**An Garda Síochána
Telecommunications Section**



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PART 1 - CCTV SYSTEMS TO BE OPERATED BY COMMUNITY BASED GROUPS

1.1 Introduction

The Department of Justice, Equality & Law Reform intends to grant aid CCTV schemes which meet certain criteria, operated by Community-based Groups. This document outlines the minimum technical/operational criteria, which Community-based CCTV Systems must comply with.

Each Community-based Group scheme will generally involve one or more interest groups (stakeholders) representing various sections of the community. Examples of different stakeholders might be:

- Local Authority
- Residents Association
- Chamber of Commerce
- Emergency Services

1.2 Scope of this Document

This document provides guidelines and specifications which are to be met by Community-based Groups proposing to establish and operate a CCTV scheme and who wish to be considered for grant aided funding from the Department of Justice, Equality & Law Reform.

The first part of the document provides guidance to groups on how they might prepare a statement of operational requirements and the actions required to gain the most appropriate response from the CCTV system. This statement, compiled from each stakeholders requirement, will form an Operational Requirement on which a CCTV system may be designed which best meets the requirements of the Community.

The remaining part of the document provides technical guidance and specifications of equipment and operating procedures designed to ensure that picture quality and content meet the requirements of the observers and the Gardaí.

1.3 Community-based Group Responsibilities

The Community-based proposal will be required to demonstrate it's technical suitability against the Groups Operational Requirement and Code of Practice. Health and Safety in regard to the overall system, it's operators/employees and the general public are the responsibility of the Community-based Group.

1.4 Addendum

The Commissioner of An Garda Síochána, the Minister for Justice, Equality and Law Reform and all respective servants, and employees thereof accept no liability for any losses or injuries in connection with the works or the ongoing use of the CCTV systems operated by the Community-based Group.

PART 2 - GUIDANCE NOTES FOR PROSPECTIVE APPLICANTS

2.1 Community-based CCTV Scheme

The scheme has been devised by the Department of Justice, Equality and Law Reform to provide grant aid funding to groups representing local community interests who wish to install and maintain a CCTV system in their area.

2.2 Guidance for Design of a Community Based CCTV Scheme

As an aid to designing a scheme, it is recommended that a methodology is adopted in order to plan a scheme which best represents the requirements of the various stakeholders and provides a solution which achieves the benefits which such a scheme is capable of providing.

The basis of any scheme should be an Operational Requirement, completed jointly by the Group. The Operational Requirement will form the basis for the design and operation of an effective and economic system. The methodology recommended here provides a process that identifies key factors, which impact on performance of the system and the way it will be operated.

2.3 Consultation

Consultation should be conducted within each area where such a scheme is envisaged. Residents in particular should be fully consulted and informed of the proposal. It is a requirement of the grant aid that residents are broadly supportive of the scheme. Care should be taken on the design of the CCTV scheme to ensure that it is acceptable to local residents regarding the location of equipment and equipment should be deployed so as to avoid any undue intrusion.

2.4 Operational Requirement

Each stake-holder of the Group should be encouraged to undertake surveys of their members requirements and compile a Operational Requirement document. In preparing a Operational Requirement, each group or stakeholder should be provided with a plan of the area concerned and an "Operational Requirement Check List" (Appendix "A") should be compiled and completed in respect of each problem encountered. The observations of each stakeholder are prioritised and a plan or map of the area, appropriately marked by the stakeholder, is drawn up.

The completed "Check Lists" together with the plan or map completed by each stakeholder forms a comprehensive view of the problems encountered by the Group. The combining and prioritising of all the requirements will provide the basis on which the design and operation of the scheme can be formulated.

2.5 Analysis

From the combined Operational Requirements submitted, the group should be in a position to analyse the submissions and prioritise the requirements. Financial analysis of the plan will need to be undertaken in order to size the plan to best meet the agreed

requirements and budgets. Capital costs, running/staffing costs and maintenance should each be factored in. Applicants will need to demonstrate how running costs will be met and that the system is sustainable for at least five years from the date of the installation of the equipment.

Analysis of the individual stakeholder Operational Requirements and a financial analysis will result in the overall Operational Requirement of the Group.

2.6 Implementation Plan

The grant awarded by the Department of Justice, Equality and Law Reform is a one off payment for new schemes only. The agreed plan will therefore be implemented as a single plan. Additional phases of a plan will not qualify for grant aid.

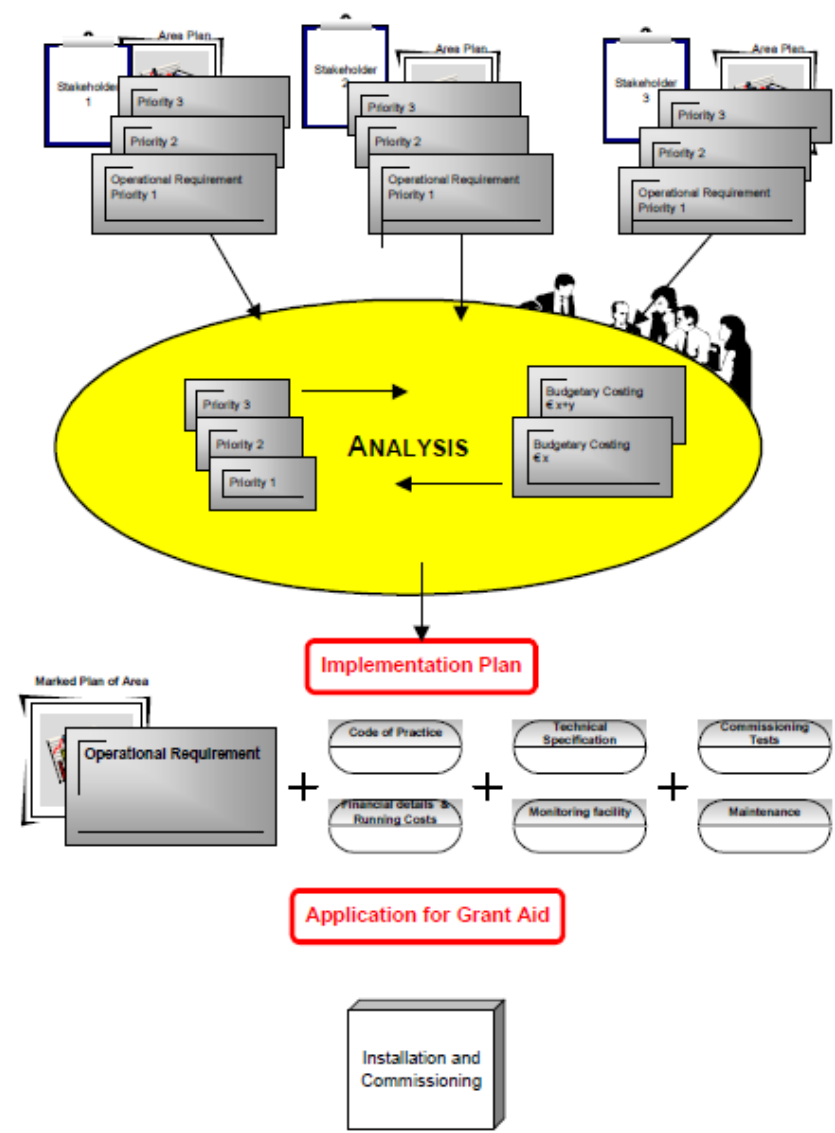
2.7 Application for Grant Aid

The Group will make application to the Department of Justice, Equality and Law Reform in the format published within the issued Prospectus.

2.8 Installation and Commissioning

Following installation of the CCTV system, a full commission and test of the system is carried out to ensure the system meets the specification and the Operational requirements.

Suggested method to develop a community-based CCTV scheme.



APPENDIX “A”

OPERATIONAL REQUIREMENT CHECK LIST

INTEREST GROUP _____ PLAN REF. NO. _____
 AREA OF INTEREST _____ REF No. _____

OBSERVATION

Target to be Observed:	What Activity by the Target is of Concern:	Purpose of the Observation:	Picture Quality/Content factors needed for success:

RESPONSE

Result of a successful Response to the Activity:	Who Makes the Response:	Time scale of the Response for it to be successful:	When is Observation needed:
 			Conditions under which the system needs to be effective (<i>Lighting/weather</i>):

OBSERVER ROLE

What will the Observer do when the activity occurs:	How will the Observer know when and where to look:	How quickly does the Observer need to act:	

CLASSIFICATION

Stake-holders: i.e. Local Authority Chamber of Commerce Residents Association	What Priority is assigned to this task:	Likelihood of an Activity occurring and how often:	Benefits of doing the action over not doing it:

Emergency Services			
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3.1 General

It is a requirement that each camera in the system is capable of Pan, Tilt and Zoom (including other necessary functions), by an operator located at the monitoring centre. The camera system should meet the requirements listed below and that of the Operational Requirements. The specifications describe individual component parts of a camera system, however, this does not exclude the use of integrated camera systems (telemetry, pan/tilt unit, camera, lens and enclosure), provided that quality and feature specifications are satisfied.

The following external camera types are recommended:

- Pan, tilt and zoom camera system assembled by the Contractor.
- Pan, tilt & zoom camera with integrated optics and telemetry (pre-built).
- Dome camera with integrated optics and telemetry.

Each type of camera listed above exhibit attributes that may offer enhanced suitability for particular operational requirements. Features and capabilities that should be taken into account are:

- Provision of high quality images both day and night.
- Speed and control of operation
- Cost.
- Robustness
- Low maintenance.
- Aesthetic qualities, and visibility of the camera.

3.2 Colour Day/Night Camera

The specification defines the requirement for a colour camera for use in urban and rural areas operating under a wide range of lighting conditions, including unlit areas.

The camera will provide twenty-four hour coverage and must be capable of producing high-resolution and accurate colour images under a wide variety of conditions ranging from high and variable levels of daylight, to low-light, to no-light.

The camera will be mounted within an environmental housing suitable for outdoor use and provide a suitable level of robustness against abuse.

The camera will normally be mounted on a column or building at a nominal height of 7 metres above ground and located at a position providing good observation of the required area.

The camera control system will provide a means to restrict intrusive viewing of areas considered or notified as private. In areas with good street lighting the camera will be required to operate normally in colour mode. A location, which suffers poor or nonexistent street lighting, will require a camera capable of viewing the required scene and providing a suitable level of recognition. Cameras sited adjacent to unlit areas such

as open spaces and rivers are recommended to be capable of operation with Infrared lighting, however in some instances it may be more appropriate to have additional lighting installed or upgraded.

The colour camera is required to provide high reliability, capable of operating to specification without the need for constant adjustment, maintenance or repair.

TV Standard	CCIR standard 625 lines, 50 fields PAL colour.
Effective Picture Elements	Not less than 752(H) x 582(V) pixels.
Resolution	Not less than 450 lines (luminance).
Image Quality	True colour image representation free of discoloration is required.
Camera Sensitivity	
<i>Colour/monochrome camera</i>	Better than 1.0 lux for colour images (AGC on). 0.5 lux for monochrome (f1.4).
<i>Integrating camera</i>	Better than 0.4 lux (f/1.2 AGC on) for colour images.
Auto Iris Control	The camera should provide iris control compatible with the proposed lens.
Video S/N	Not less than 48dB at 2.5 lux sensor illumination.
AGC	Automatic with manual override
Focus (if applicable)	Automatic with manual override.

3.3 Zoom Lens

The proposed lens for use at any particular location shall be suitable for providing images of the area and targets as defined in the groups Operational Requirement.

The zoom range and focal length (camera dependent), of each lens shall meet the Operational Requirement and taking into account the area plan and the defined image content.

The lens shall be a high-resolution type with high transmission efficiency suitable for external daylight and low-light conditions.

The lens shall be fully compatible with the proposed camera.

The specifications for a motorised zoom lens are listed below.

Minimum f-stop	F1.4 or better with low ramping over zoom range.
Iris	Automatic and remote manual iris control. Neutral density spot filter.
Maximum Aperture	F1.4 ~360
Focus	Motorised with pre-sets
Zoom	Motorised with pre-sets. Speed <5 seconds for lens up to 10X <10 seconds for lens up to 20X

The lens shall be of a high quality, with particular emphasis placed on the aperture of the lens for low-light operation and the quality of the electromechanical assembly in terms of operation and expected lifetime reliability.

Camera/lens combinations utilising Auto-focus should provide fast tracking of objects and manual override of Auto-focus should be possible.

3.4 Environmental Camera housing

The housing shall be designed to IP65 protection and should provide climatic and mechanical protection of the camera, lens and ancillary equipment and cables. It should not obstruct the field of view of the camera. A wiper is required with remote operation. Washer units are not generally required.

A heater with automatic thermal switching for optimum climatic control is required.

3.5 Infrared Lighting

It is recommended that a survey be carried out at each location to identify areas that may benefit from the use of infrared lighting.

Areas that can benefit from infrared lighting are those adjacent to open spaces without public lighting and along waterways.

When Infrared lighting is considered a requirement, it is recommended a wide-angle flood lamp and a narrow beam spot lamp, selected to provide sufficient illumination over the area is provided. The power and type of the lamps employed should be suitable to meet the Operational Requirement.

3.6 Pan and Tilt Unit

Dependent on the camera selected for use at a specific location, the pan & tilt units employed shall be a heavy-duty variable speed type, with high quality bearings, motor control and pre-set potentiometers, capable of long term use.

The arc of travel of the platform should be adjustable within specified limits pre-set for each camera location.

The pan and tilt unit should be capable of fast, smooth and precise movement with minimal lag or overshoot.

The un-powered holding torque should be sufficient to hold a fully fitted camera platform, complete with dual IR lamps (if required), in any position without slippage when subjected to wind speeds of up to 60 mph.

The motor and telemetry control shall provide variable speed movement of the camera platform with a pan speed from approximately 6° to 50° per second and a tilt speed of approximately 12° per second. Units providing a wider range than these figures are acceptable provided that the unit is capable of supporting the camera assembly without undue wear and strain on the unit.

3.7 CE Compliance

The camera housing assembly, complete with associated components and wiring must bear the CE mark.

CE certification of individual component items is not sufficient.

PART 4 – TRANSMISSION

4.1 Transmission methods

The system proposed for transmission of video signals and telemetry should be based preferably on fibre optic transmission system installed in underground ducting or routed via premises where way-leaves have been obtained. Copper or coaxial transmission of base-band video is to be avoided due to risk of eavesdropping and the inherent loss of image quality associated with these systems.

Microwave radio transmission may be utilised dependent on regulatory permission, if it is found that a cabled system is not feasible. The Contractor will be responsible for acquiring any licence necessary on behalf of the Community-based Group. Licence fees may be applicable.

Digital transmission over secure broadband systems capable of providing image quality levels meeting the objectives of the Operational Requirement are acceptable provided that real-time monitoring of an activity can be undertaken.

On going costs for the provision of cable or duct services attributable to maintenance, licensing and rental charges should be identified and detailed by the Contractor. The system of transmission, especially microwave links should provide a certain level of security against unauthorised monitoring and interference of signals.

The Contractor is required to set out and describe the transmission system plan.

Guarantees are required that the monitoring centre will be provided with images displaying a high level of signal quality in terms of signal level, interference, noise, bandwidth or image quality and that a high level of link resilience shall be provided.

The transmission system should be resilient to all weather conditions frequently experienced in the locality.

Radio links should be operated within their specified licensing conditions and distances.

Telemetry signalling should be integrated into the video transmission equipment and transmitted over the same medium at a rate not less than 9600bps and provide terminated connections for control via a standard data interface (e.g. RS232, RS422, RS485). Systems employing FSK telemetry shall have the facility to transmit the FSK signals over the transmission medium.

4.2 Specifications relating to Coaxial, Fibre-optic and Microwave transmission.

Video Bandwidth	Not less than 5.6 MHz
Video Signal Quality	Less than 5% differential gain Less than 5% differential phase
Video Signal to Noise	Not less than 46dB
Video termination	75Ω terminated BNC input/outputs PAL composite video input of 1V _{p-p} .

4.3 Radio Links

If radio links are to be employed as part of the system the Contractor must obtain a frequency allocation and licence from the Commission for Communications Regulation (ComReg), Abbey Court, Irish Life Centre, Lower Abbey Street, Dublin1.
(Web: www.comreg.ie)

The Contractor shall be responsible for the surveying, installation and commissioning of any radio link and site.

The Contractor shall be responsible for ensuring compliance with all Licence conditions and safety regulations.

PART 5 - CAMERA SITE - EQUIPMENT AND INSTALLATIONS

5.1 General

The following specifications cover the general requirements of items and services provided at each camera site.

Plans showing the location of cameras, equipment and proposed signal routes and types are to be supplied.

5.2 Outdoor Equipment Cabinet

Outdoor equipment cabinets must conform to IP65 for environmental protection and electrical safety. Cabinets fitted in secure locations (not easily accessible to the general public) should be fitted with a standard cabinet lock. Roadside cabinets should be secured with anti tamper fixings in addition to the standard cabinet lock.

5.3 Camera Mounting Brackets

It is recommended that cameras be placed at a height of 7 metres above ground. A heavy-duty mounting bracket is required, specifically and individually designed or selected to support the camera assembly on each structure or premises proposed and capable of easily and safely supporting the proposed camera assembly. High quality rust proof materials shall be used in the construction of the brackets, including fixings, bands, nuts, bolts and screws.

5.4 Camera Column (pole)

The camera and associated equipment at each location will determine the choice of camera column or pole required.

It is recommended that the standard column provide a camera platform height of 7 metres, however, under certain circumstances, a greater or lesser height may be more appropriate. Situations affecting the height of the column are radio “line of sight” issues, camera security considerations or obstacles preventing the camera from viewing a particular scene.

The camera poles shall be constructed of galvanised tubular steel in one single column designed to provide a rigid and stable platform for the camera and any additional items such as microwave radio links or equipment. Lattice or tilt-over types are not acceptable.

The column shall safely house any transmission/telemetry equipment, electrical mains power supplies and any other items required to be placed within it. An access hatch suitable for installation and service requirements shall be provided. A secure and lockable cover shall be provided.

Planning requirements may influence the type of column or pole to be utilised at any location, it is therefore recommended that any specific requirements are established at an early stage with the planning authority.

5.5 Camera/Equipment location

The location of cameras and ancillary equipment and cabling in any area and on buildings or structures shall comply with planning requirements and way-leave agreements obtained by the Group.

5.6 CCTV Signs

Signs of an appropriate size should be placed so that the public is made aware they are entering an area where CCTV cameras are in operation. The signs should clearly show that CCTV cameras are in operation and identify the organisation legally responsible for the system.

5.7 Electrical Mains Supply

The Contractor shall co-ordinate the provision of electrical mains supplies.

The ESB publication “National Code of Practice for Customer Interface. 3rd Edition 2002” provides a single interpretation of ESB requirements. This document also covers the electrical supply requirements for CCTV camera installations.

Power supplies for cameras and links will be obtained from the electricity supply provider; this will normally be a single-phase 230V 50Hz AC mains supply.

The ESB will require applications for electrical supply from the Community-based Group and satisfactory completion certificates issued by the electrical contractor prior to supply being provided at each site. The ESB will normally issue specific requirements following inspection of each of the camera sites.

The installation of the electrical works at each camera site and the consumer unit must meet all ESB and ETCI specifications.

The installation of the electrical supply from an agreed supply point and the fitting of consumer units and earth rods will be the responsibility of the Contractor.

PART 6 - MONITORING CONTROL CENTRE

6.1 Control Centre

The design of the system will provide control of the CCTV system in premises provided by the Community-based Groups.

6.2 Monitoring Facilities

As monitoring facilities will vary due to the size and nature of any scheme the following common requirements shall be taken into account in the provision of facilities.

The area selected to view the monitors and operate the equipment will be suitable for limiting access only to those responsible for its operation and management and others with legitimate or sufficient reasons for entry. The area should be capable of being secured against unauthorised entry. Viewing of video monitors should not be possible from positions outside this area. Window blinds shall be used to prevent viewing of monitors from outside the building. Procedures and facilities should be put in place to ensure protection against unauthorised access to the area.

All monitoring equipment shall meet relevant safety requirements for electrical equipment and installations and be operated within these requirements.

The monitoring of the CCTV images shall be carried out having due regard to viewing ergonomics, health and safety and comfort of the CCTV operators. Issues such as viewing angles and distance, lighting / environmental conditions and staff facilities should be satisfactorily met.

Suitable ventilation shall be provided to remove heat generated by the CCTV equipment and to maintain good environmental conditions for the operators and equipment. The main areas of heat generation will be from video and computer monitors, video recorders and fibre-optic termination equipment. The capacity of the ventilation system should take into account the quantity and power consumption of the equipment to be installed.

Lighting should be provided which aids the viewing of video monitors and which also provides effective light for report writing. The control desk should provide adequate space for CCTV control equipment, radio or telephone equipment, writing space and storage area for log books etc.

The video monitors should be positioned so as to prevent light from windows causing reflections on the screens and from shining directly into the operators' eyes.

The size, positioning and number of monitors in a control room will have an effect on the performance of the CCTV operator. Consideration of viewing and operator requirements should be a priority in the design of the control room.

The size of the monitor will depend on the level of picture detail and text displayed, the distance of the monitor from the operator and the nature of visual tasks. High-resolution monitors are recommended for these tasks with a horizontal line resolution of

at least 650 lines of resolution for 14” to 17” monitors and 550 lines of resolution for monitors of 19” to 21”. LCD and Computer video monitors should display a minimum of 1024 by 768 pixels and provide a wide viewing angle in the horizontal and vertical directions.

The monitors may form part of a bank of monitors and should be designed to take into account heat dissipation and electrical/electromagnetic isolation.

Power supplies for the CCTV control installation shall meet electrical wiring standards and shall be adequate for all equipment proposed.

6.3 Secure Tape and Media Storage Cabinets

A secure lockable cabinet to facilitate 31-days storage of tapes to be secured on the premises is required. This cabinet should be designed in such a way that those responsible for storing and removing tapes can easily identify each designated location slot and tape. Some additional space should be allocated for the storing of spare tapes to replace those removed for evidential purposes or replacement of faulty tapes.

A second lockable cabinet for the storage of tapes removed for evidential purposes should also be provided to prevent accidental re-recording.

Where Digital recording systems are in use the storage requirements will be sufficient to provide secure storage of media been held off the system up to the 31-day storage requirement and for media retained as evidence.

6.4 System Management Functions

Depending on the nature of each CCTV scheme, combinations of equipment offering a range of functions will be proposed by vendors. In order to clearly define the properties and functions required of any system as a whole, the following requirements are to be stipulated.

The system shall provide management facilities in the form of restricted user access.

The following basic management facilities shall be provided by the system.

Manufacturers may well refer to a facility or feature by different names, however, the basic requirements are as listed below.

User level set-up

Supervisor options and operator options set-up.

Camera home positions

A facility to program each camera a home position.

Privacy zones

A facility to program privacy zones per camera. The system is required to allow the programming of specific areas viewed by the camera as a privacy zone. This area when defined, will be viewable under wide angle viewing of the scene,

however if an operator attempts to zoom in on the specific area, the image is required to distort, blackout or auto-pan away from the area.

Camera set-up

Camera on-screen displays and remote camera set-up and maintenance should be provided.

System functions

- Privacy zones
- Home position, Timed patrolling
- Alarm recording
- Operator management and passwords

Operator Functions

- Camera selection with switched viewing on spot monitor.
- Camera Pan & Tilt
- Lens Zoom, Focus, Iris Auto and Manual
- Lighting On/Off/Auto
- Washer/Wiper
- Pre-set positioning and patrols

The camera control system either in the form of a keyboard/joystick or graphical user interface will provide the operator with control of the camera functions and functions of the multiplexer/matrix system including any proprietary functions offered to enhance system performance.

Each operators camera controller will interface to the video multiplexer/matrix or digital recording system, enabling a selected camera to be viewed on a spot monitor and recorded on an event recorder as required.

6.5 Recording /Playback

Proposals employing either Analogue or Digital based recording systems are acceptable.

The recording rate for each camera shall not be less than one (1) frame per second.

It is recommended in the case of analogue tape recording, that the recording mode in use will not more then the 12-hour mode setting.

A suitable number of recorders to achieve the above recording rate with the specified number of cameras shall be provided.

One video recorder for real-time event recording shall be provided. Or in the case of digital recording, playback of the operators spot monitor at full resolution, at a high recording rate is required.

The system is required to provide a playback facility to allow reviewing of recordings.

It is recommended that the playback area is located away from the monitoring area to facilitate in-private viewing of recordings.

The system should provide a suitable connection point to provide evidential copying of images to tape or the connection of a printer for evidential purposes. Digital recorders should preferably provide a PAL composite and/or y/c output for copying purposes. Alternatively, a copy facility should be provided such as CD-ROM, DVD or filetransfer via standard system interfaces. Playback and interface software, whether of a proprietary nature or not, should be provided as part of the system.

In the case of analogue recording, high quality S-VHS SE180 tapes shall be used to ensure highest quality recording.

It is recommended that videotapes be replaced after 12 recording cycles.

6.6 On-screen Text Display

A character generator providing burnt-in on-screen camera identification and time/date information shall form part of the system. The following information shall be imposed on each camera image and recorded: -

	Camera identification number or title
	Time and Date
<i>Optional:</i>	Location (scene viewed, street or area name)

A feature to have the named location change according to the general direction the camera is currently viewing is optional.

6.7 Video Matrix Switching

Where it is envisaged that a matrix function will be required to provide various functions and to facilitate event recording, playback etc. The switch shall provide sufficient capacity to facilitate all video-switching requirements proposed. The system should allow for an additional percentage of capacity initially and should be supplied in a configuration that allows economical expansion of the system, should this arise.

6.8 Video Multiplexing

Multiplex or time-lapse recording equipment shall be installed with the capacity to record each camera in the system at a rate of not less than 1 frame per second per camera.

The multiplex or time-lapse recording systems shall provide image stabilisation systems to achieve a high degree of image quality.

Duplex operation of the recording equipment to enable simultaneous recording and playback shall be provided. Larger systems shall provide dedicated playback facilities.

To achieve a minimum recording rate of 1 frame per second per camera over the recommended 12-hour period with SE-180 videocassettes, care should be taken in the number and selection of appropriate multiplexers and recorders.

The Contractor shall describe the multiplexer and recording system proposed.

Features	Activity detector, Time base correction, Alarms.
Record Field Rate	50 fields per second.
Video In/Out	1 V _{p-p} 75Ω BNC terminated.
Duplex Operation	The multiplexer should allow the operator to playback a recorded tape without disrupting the recording process.
Television System	625 line 50 Hz PAL CCIR
6.9 Video Monitors	
Video System	625 line CCIR PAL
Video Inputs	1 V _{p-p} 75Ω BNC with loop-through and 75Ω termination switch.
Controls	Chroma, Brightness, Contrast.
Display	CRT
Horizontal Resolution	35cm (14") to 44cm (17") - Better then 650 lines 53cm (21") - Better then 550 lines
LCD monitor	1024 by 768 pixels

6.10 S-VHS Time lapse recording

Analogue systems shall use S-VHS time-lapse recording systems. Multiplexed and live event recording shall be operated in the S-VHS mode.

Tape Format	S-VHS.
Television System	625 line, 50 field PAL Colour signal.
Recording Modes	
Time-lapse	S-VHS 12-hour time-lapse recording or better in terms of recorded image quality and required camera recording rate (One image per camera per second).
Event recording	S-VHS 3-hour mode.
Horizontal Resolution	400 lines or better.
Signal to Noise Ratio	Video : Better than 40 dB
Video Inputs/Outputs	75 Ohm unbalanced 1V peak to peak. BNC Composite video input / output

6.11 Digital Recording

Digital recording systems are required to meet the following requirements.

Stored Image Quality	Picture quality and resolution should be equivalent to or exceeding that of S-VHS 12-hour time-lapse recording.
Recording rate	Not less than 1 image per camera per second for each camera in the system.
Storage medium	Internal buffered store with archival system maintained external to the system.
Monitoring	The system should provide multiple screen and single screenviewing of camera inputs. A spot monitor video output should be provided. The image quality of the spot monitor output should be high quality, live 25 frames per second video image.
Media Copy Output	It is preferable that a PAL composite or y/c video output from the system suitable for transferring selected digital images (video and stills) to other formats is provided. The transferred image should show the full screen image of the originally recorded picture image. Alternatively, a copy facility should be provided such as CD-ROM, DVD or filetransfer via standard system interfaces. Playback and interface software, whether of a proprietary nature or not, should be provided as part of the system.
Playback/Search	The recorder should allow duplex operation. The system shall be capable of search and playback of recorded images while maintaining full recording of cameras.
Controls	Record, Play, Fast/Slow Forward and Rewind, Pause.
Search Facilities	By Time/Date and camera number of both internal buffer storage and archived recordings.
Archive	The archival system and procedures should provide storage of all images recorded by the system for a period of 31 days and for destruction of images older than the specified number of days unless required for crime investigation and evidential purposes by An Garda Síochána.
Media/Format	The archival media, format and image capacity should be described and details provided. Authentication, Encryption and compression systems should be described and details provided. Facilities required for viewing archival media, without access to the Monitoring Site equipment and facilities, should be described.

PART 7 – SERVICES

7.1 Warranty

The warranty period should be stated and should cover a period of not less than twelve months from commissioning and acceptance of the system. A detailed general maintenance plan for the CCTV system is to be included in the proposal. During the warranty period, such works as required by to maintain the system in full order are to be carried out on a regular basis as detailed in the proposal. During the warranty period, malfunctions or defective works forming part of the installation will be the responsibility of the Contractor to repair, replace or to carry out such works as required to maintain full functionality of the system. Maintenance during the warranty period is to be carried out on a regular basis as detailed in the proposal.

7.2 Maintenance Contract

It is recommended that a maintenance contract be put in place to ensure the system is maintained in full working order. The contract should include the provision of a regular maintenance schedule and maintenance callout procedure with suitable response times.

The Contractor will be required to hold a supply of recommended spare parts for maintenance purposes.

The proposed maintenance contract and recommended spare parts list shall be submitted with the proposal.

7.3 Maintenance / Upgrading Issues

The overall Tender price shall cover any software upgrades or software-configuration changes that may be required during the warranty period following commissioning.

7.4 Operator Equipment Training

All personnel employed as operators or supervisors shall receive training in the use of the equipment. Operator training shall be provided by the Contractor and will provide the participant with a thorough working knowledge of the system.



DEPARTMENT OF JUSTICE, EQUALITY AND LAW REFORM
AN ROINN DLÍ AGUS CIRT, COMHIONANNAIS AGUS ATHCHÓIRITHE DLÍ

CODE OF PRACTICE FOR COMMUNITY- BASED CCTV SYSTEMS

INTRODUCTION

This Code of Practice sets out the basic conditions of use for Community-Based CCTV systems by applicants for the Department of Justice, Equality and Law Reform's grant-aid scheme.

All persons involved in the planning, supervision or operation of such a CCTV scheme should familiarise themselves with this document from the outset.

It is of crucial importance in order to maintain public confidence in the operation of Community-Based CCTV systems that there is no improper use of the equipment. Any misuse of CCTV systems is likely to damage the positive perception of CCTV in the eyes of the public. Compliance with this Code of Practice governing Community-Based CCTV systems and their operation will not only assist CCTV scheme operators to act in accordance with law but also aid in maintaining the confidence of the public in the systems.

This Code of Practice is designed to assist operators of CCTV systems by highlighting certain legal obligations set down in the Data Protection Acts, 1988 and 2003. In order for this Code of Practice to remain relevant to the day to day activities of CCTV operation, it needs to be constantly updated as practice and understanding of the laws in this area develop. Accordingly, this Code will be kept under review to ensure that it remains relevant in the context of changes in technology, and compliant with any developments in this area.

(1) Initiation of a CCTV System

- (1.1) The purposes of any CCTV system qualifying for grant aid under this scheme should include:
- assistance in the maintenance of public order and safety;
 - assistance in the prevention, detection and investigation of offences;
 - assistance in the prosecution of offenders.
- (1.2) Only persons authorised by the Community-Based Group shall be permitted access to the control area where monitoring takes place.
- (1.3) The Community-Based Group will at all times ensure the proper and responsible operation of the CCTV system under their control and ensure that all persons operating or monitoring the system are appropriately trained in the system's use and understand the restrictions and legal obligations imposed upon them by the laws in this area. For the purposes of the Data Protection Act, 1988, each Local Authority must undertake to act as the Data Controller.
- (1.4) It is the responsibility of the Community-Based Group to ensure that all uses of the system are appropriate and in the interest of the community.
- (1.5) A manager or designated person should be nominated by the Data Controller. This individual will have responsibility for ensuring the proper, efficient and orderly day to day operation of the CCTV system.
- (1.6) The Community-Based Group shall maintain an appropriate record of the system's effectiveness.
- (1.7) Respect for the individual's liberty and privacy where no criminal offence has been or is being committed should be of primary consideration.

(2) Siting Standards

- (2.1) Cameras should be sited in such a way that they only monitor those spaces which are intended to be covered by the system.
- (2.2) Operators must be aware of the purposes for which the scheme has been established.
- (2.3) Operators must be aware that they may only use the cameras in order to achieve the purposes for which the system has been installed. Care must be taken not to use the cameras to look into any premises, be they public houses, shops, business premises or private dwellings. This approach must likewise be taken with any demonstration of the capabilities of the cameras.
- (2.4) Operators must also be aware of the position a camera is left in after use. A camera when not in use should be placed in the most advantageous position to record any incidents occurring in a public area within its field of vision.
- (2.5) Signs should be placed so that the public are aware that they are entering an area which is covered by a CCTV system. These signs should be clearly visible and legible to members of the public. Such signs should contain the following information:
 - (a) the identity of the person or organisation responsible for the CCTV scheme.
 - (b) the purposes of the scheme.
 - (c) details of who to contact regarding the scheme.

(3) Quality of the Images

- (3.1) Upon installation an initial check should be undertaken to ensure that all equipment performs properly.
- (3.2) If tapes are used, it should be ensured that they are good quality tapes.
- (3.3) The medium on which the images are captured should be regularly cleaned so that images are not recorded on top of images recorded previously.
- (3.4) The medium on which the images have been recorded should not be used when it has become apparent that the quality of images has deteriorated.
- (3.5) If the system records features such as the location of the camera and/or date and time reference, these should be accurate.
- (3.6) If the system includes location and date/time reference features, users should ensure that they have a documented procedure for ensuring their accuracy.
- (3.7) Cameras should be situated so that they will capture images relevant to the purpose for which the scheme has been established.
- (3.8) When installing cameras, consideration must be given to the physical conditions in which the cameras are located.
- (3.9) Users should assess whether it is necessary to carry out constant real time recording, or whether the activity or activities about which they are concerned occur at specific times.
- (3.10) Cameras should be properly maintained and serviced to ensure that clear images are recorded.
- (3.11) Cameras should be protected from vandalism in order to ensure that they remain in working order.
- (3.12) A maintenance log should be kept by the Data Controller.
- (3.13) If a camera is damaged, there should be clear procedures for:
 - (a) defining the person responsible for making arrangements for ensuring that the camera is repaired.
 - (b) ensuring that the camera is repaired within a specific time period.
 - (c) monitoring the quality of the maintenance work.

(4) Processing of CCTV Images

- (4.1) All tapes will be stored in lockfast facilities to which access is restricted within the CCTV control area at all times except when:-
- (i) They are requested by the Garda authorities and such a request being authorised by a member of at least the rank of Inspector.
 - (ii) They are requested through the judicial process. Tapes held should be counted daily and a record kept by the Data Controller or designated person acting on the Data Controller's behalf.
- (4.2) Images should not be retained by the Data Controller for longer than is necessary. Images will be erased and tapes re-used after a period of 31 days unless required for the investigation of offences or evidential purposes.
- (4.3) Only persons authorised by the Data Controller shall be allowed access to the tapes used in the CCTV system.
- (4.4) Access to the recorded images should be restricted by the Data Controller to a designated person or persons. Other persons should not be allowed to have access to that area when a viewing is taking place.
- (4.5) Copies of tapes are not to be made by the Community-Based Group. If copies are to be made, the Data Controller will do so in any of the following circumstances:
- i. the incident recorded is of a serious nature (eg. one that may lead to criminal proceedings).
 - ii. a formal request from a member of An Garda Síochána (of at least the rank of Inspector),
 - iii. the incident recorded is proceeding to trial.
 - iv. a request to view the tape is received from the DPP.
 - v. the circumstances are such that repeated playing of the incident recorded on tape is required (i.e. to show to witnesses).
 - vi. where a copy is required in order to satisfy a subject access request.
- (4.6) In the circumstances set out at Section 4.5, the original tape will be retained by the Data Controller until it is necessary to take it to Court. An original tape shall remain in the possession of the Data Controller or a person designated to act on its behalf unless the original is required:
- (i) for the purpose of court proceedings;
 - (ii) by or under any other enactment.

- (4.7) On removing the medium on which the images have been recorded, the Data Controller should ensure that they have documented:
- (a) the date on which the images were removed from the general system;
 - (b) the reason why they were removed from the system;
 - (c) any crime incident number to which the images may be relevant;
 - (d) the location of the images;
 - (e) the signature of the collecting official, where appropriate.
- (4.8) Removal of the medium on which images are recorded, for viewing purposes, should be documented as follows:
- (a) the date and time of the removal.
 - (b) the name of the person removing the images.
 - (c) the name(s) of the person(s) viewing the images. (If this should include third parties, the name of the organisation to which the third party belongs).
 - (d) the reason for the viewing.
 - (e) the outcome, if any, of the viewing.
 - (f) the date and time the images were returned to the system or secure place, if they have been retained for evidential purposes.
- (4.9) All operators and employees with access to images should be made aware by the Data Controller of the procedures which need to be followed when accessing the recorded images.
- (4.10) It is the responsibility of the Data Controller to ensure that all operators are trained in their responsibilities under this Code of Practice (i.e. they should be aware of :
- (a) the user's security policy (*e.g. procedures for access to recorded images*).
 - (b) the user's disclosure policy.
- (4.11) The use of automatic facial recognition technologies is prohibited, pending any future revision of this Code in the light of data protection requirements.

(5) Access to and Disclosure of Images to Third Parties

- (5.1) Access to images should be restricted to those staff who need to have access in order to achieve the purposes of using the equipment.
- (5.2) All access to the medium on which the images are recorded should be documented by the Data Controller or a manager or designated member of staff acting on the Data Controller's behalf.
- (5.3) Disclosure of the recorded images to third parties should only be made by the Data Controller in limited and prescribed circumstances. Circumstances in which disclosure is appropriate would, for example, include
 - (a) a formal request from a member of An Garda Síochána (of at least the rank of Inspector), for disclosure of images, on the grounds that the images are likely to be of use for the investigation of a particular offence;
 - (b) a requirement under any enactment, rule of law or court order to disclose the images;
 - (c) if required by the Data Controller's legal representatives if a case/action is being taken against the Community-Based Group;
 - (d) the media, where it is decided that the public's assistance is needed in order to assist in the identification of victim, witness or perpetrator in relation to a criminal incident. As part of that decision, the wishes of the victim of an incident should be taken into account. The release of images to the media in a criminal investigation is solely within the remit of An Garda Síochána.
 - (e) people whose images have been recorded and retained (unless disclosure to the individual would prejudice criminal inquiries or criminal proceedings).
- (5.4) All requests for access for disclosure should be recorded by the Data Controller. If access or disclosure is denied, the reason should be documented.
- (5.5) If access to or disclosure of the images is allowed, then the following should be documented:
 - (a) the date and time at which access was allowed or the date on which disclosure was made;
 - (b) the identification of any third party who was allowed access or to whom disclosure was made;
 - (c) the reason for allowing access or disclosure;
 - (d) the extent of the information to which access was allowed or which was disclosed;
 - (e) the identity of the officer authorising such access.

- (5.6) Where the images are determined to be personal data, if it is decided that images will be disclosed to the media, the images of individuals may need to be disguised or blurred so that they are not readily identifiable.
- (5.7) If the system does not have the facilities to carry out that type of editing, an editing company may need to be hired to carry it out.
- (5.8) If an editing company is hired, then the manager or designated member of staff needs to ensure that:
 - (a) there is a contractual relationship between the Data Controller and the editing company;
 - (b) that the editing company has given appropriate guarantees regarding the security measures they take in relation to the images;
 - (c) the Data Controller shall have in place appropriate and adequate procedures to ensure those guarantees are met including a right of access to the contractor's premises or systems;
 - (d) the written contract makes it explicit that the editing company can only use the images in accordance with the instructions of the Data Controller or a manager or designated member of staff acting on the Data Controller's behalf;
 - (e) the written contract makes the security guarantees provided by the editing company explicit.
- (5.9) If a media organisation as referred to at Section 5.3(d) receiving the images undertakes to carry out the editing, then (a) to (e) above will still apply.

6. Access by Data Subjects

Data Subject Access Standards

- (6.1) All staff involved in operating the equipment must be able to recognise a request by data subjects for access to personal data in the form of recorded images by data subjects.
- (6.2) Data subjects may be provided with a standard subject access request form which:
 - (a) indicates the information required in order to locate the images requested;
 - (b) indicate that a fee will be charged for carrying out the search for the images requested. The maximum fee which may be charged for the supply of copies of data in response to a subject access request is set out in the Data Protection Acts, 1988 and 2003;
 - (c) ask whether the individual would be satisfied with merely viewing the images recorded;
 - (d) indicate that the response will be provided promptly following receipt of the required fee and in any event within 40 days of receiving adequate information.
- (6.3) Staff operating the system should be able to explain to members of the public the type of images which are recorded and retained, the purposes for which those images are recorded and retained, and information about the Group's disclosure policy in relation to those images. Staff may find it valuable to have a leaflet available as an aid to any such explanation.
- (6.4) If available, this leaflet should be provided at the time that the standard subject access request form is provided to an individual.
- (6.5) All data subject access requests should be dealt with by a manager or designated member of staff whose identity is known to other staff members (See paragraph 1.5).
- (6.6) The manager or designated member of staff should locate the images requested.
- (6.7) The manager or designated member of staff should determine whether disclosure to the individual would entail disclosing images of third parties.
- (6.8) If third party images are not to be disclosed, as in Section 6.7, the manager or designated member of staff shall arrange for the third party images to be disguised or blurred.
- (6.9) If the system does not have the facilities to carry out the type of editing required at (6.8) above, a third party or company may be hired to carry it out.
- (6.10) If a third party or company is hired, then the manager or designated member of staff needs to ensure that:

- (a) there is a contractual relationship between the Data Controller and the third party or company;
 - (b) that the third party or company has given appropriate guarantees regarding the security measures they take in relation to the images;
 - (c) The Data Controller shall have in place appropriate and adequate procedures to ensure those guarantees are met including a right of access to the contractor's premises or systems;
 - (d) The written contract makes it explicit that the third party or company can only use the images in accordance with the instructions of the manager or designated member of staff.;
 - (e) The written contract makes the security guarantees provided by the third party or company explicit.
- (6.11) It is the responsibility of the Data Controller to ensure that all staff are aware of an individual's rights under relevant Data Protection Legislation as well as those mentioned under this Code of Practice.

7. Miscellaneous Data Subject Rights

- (7.1) All staff involved in operating the CCTV equipment must be able to recognise a request from an individual to:
- (a) rectify or erase, where appropriate, personal data.
 - (b) prevent processing likely to cause substantial and unwarranted damage to that individual, unless a legitimate reason exists for such processing.
 - (c) prevent automated decision taking (ie. automatic facial recognition) in relation to that individual.
- (7.2) All staff must be aware of the identity of the manager or designated member of staff who is responsible for responding to such requests.
- (7.3) In relation to a request for rectification, erasure or to prevent processing likely to cause substantial and unwarranted damage, the manager or designated member of staff's response should indicate whether he or she will comply with the request or not.
- (7.4) The manager or designated member of staff must provide a written response to the individual within 21 days of receiving the request setting out their decision on the request.
- (7.5) If the manager or designated member of staff decides that the request will not be complied with, they must set out their reasons in their response to the individual.
- (7.6) A copy of the request and response should be retained and filed securely.
- (7.7) The manager or designated member of staff shall document:
- (a) the request from the individual;
 - (b) the original decision;
 - (c) their response to the request from the individual;
 - (d) the reasons for rejection, if applicable.

8. Monitoring Compliance with this Code of Practice

It is the responsibility of the Data Controller to ensure that there is full compliance with this Code of Practice. Contravention of a provision of the Data Protection Acts 1988 and 2003 may expose a person to prosecution under the Act.

Monitoring Standards

- (8.1) The contact point indicated on the sign should be available to members of the public during office hours. Employees staffing that contact point should be aware of the policies and procedures governing the use of the Community-Based Group's CCTV equipment.
- (8.2) Enquirers should be provided on request with one or more of the following:
 - (a) the leaflet, if available, for the purpose of general information which enquirers may receive when they make a subject access request;
 - (b) a copy of this Code of Practice;
 - (c) a data subject access request form if required or requested;
 - (d) the complaints procedure to be followed if an enquirer has concerns about the use of the system;
 - (e) the complaints procedure to be followed if an enquirer has concerns about noncompliance with the provisions of this Code of Practice;
 - (f) no fee may be charged in respect of the provision of any of the above documents.
- (8.3) A complaints procedure should be clearly documented by the Data Controller.
- (8.4) A record of the number and nature of complaints or enquiries received should be maintained by the Data Controller together with an outline of each action taken.
- (8.5) A report on those numbers should be collected by the manager or designated member of staff in order to assess public reaction to, and opinion of, the use of the system.
- (8.6) A manager or designated member of staff should undertake regular reviews of the documented procedures to ensure that the provisions of this Code of Practice are being complied with. Such an audit should be carried out on at least an annual basis.
- (8.7) A report on those reviews should be provided to the Data Controller in order that compliance with legal obligations and provisions of this Code of Practice can be monitored.
- (8.8) An internal annual assessment should be undertaken which evaluates the effectiveness of the system. The audit referred to at (8.6) may form part of such an assessment.
- (8.9) The results of the report should be assessed against the stated purpose of the scheme. If the scheme is not achieving its purpose, it should be reviewed or modified where necessary.

Letter to Research Participants

Dear _____,

I am a Sergeant in the Garda National Crime Prevention Unit, based at Harcourt Square, Dublin 2. I am currently studying for an MA in Criminology from the Dublin Institute of Technology. For my thesis, I have chosen to examine community-based CCTV systems in Ireland and have selected four schemes, of which yours is one.

As part of the study, I am hoping to interview persons with knowledge and experience of the community-based CCTV programme. If you are agreeable, I would like to conduct an interview with you at a time and place convenient to you. The interview should take no longer than 30 minutes and will, if you have no objection, be recorded on a dictaphone.

In accordance with the ethical guidelines as set out by the Dublin Institute of Technology, I can confirm that all information provided will be treated in confidence and will only be discussed with my thesis supervisor, Dr. Matt Bowden. No names or exact locations will be published in the thesis and records of the interviews will be securely stored by me until no longer necessary. At that stage they will be destroyed. I have also enclosed a copy of the ethical guidelines for your information, should you wish to examine same.

While you are under no obligation to partake, I really would appreciate a favourable response to my request.

Yours sincerely,

(AIDAN DONNELLY)

Consent Form

Researcher's Name: (use block capitals)	Title:
Faculty/School/Department:	
Title of Study:	
To be completed by the interviewee:	
1. Have you been fully informed/read the information sheet about this study?	Yes / No
2. Have you had an opportunity to ask questions and discuss this study?	Yes / No
3. Have you received satisfactory answers to all your questions?	Yes / No
4. Have you received enough information about this study and any associated health and safety implications if applicable?	Yes / No
5. Do you understand that you are free to withdraw from this study? <ul style="list-style-type: none"> • at any time • without giving a reason for withdrawing • without affecting your future relationship with the Institute 	Yes / No
6. Do you agree to take part in this study the results of which are likely to be published?	Yes / No
7. Have you been informed that this consent form shall be kept in the confidence of the researcher?	Yes / No
Signed _____ Date _____ Name in Block Letters _____ Signature of Researcher _____ Date _____	

Interview Questions

Data Controller / Administrator:

No.	Questions
1	What is your role with regard to community-based CCTV schemes?
2	How important is your role?
3	Is your role an onerous one, taking up a lot of your time?
4	Do you think that this should be spread out to other persons?
5	Have you had any problems with your role as data controller / administrator?
6	Do you have any concerns with regard to data protection issues?
7	Have any members of the public expressed concern to you about privacy or other issues?
8	Who and how was it decided that there was a need for a community-based CCTV system in the area?
9	Do you think that the public support community-based CCTV?
10	Do you think that community-based CCTV systems are worthwhile and from what perspective?
11	Would you say that community-based CCTV empowers communities and provides a degree of self-responsibilisation for their own safety and security?
12	Do you think a multi-agency approach is the way forward for dealing with most issues in the community today and is community-based CCTV a good example of this?
13	What role, if any, has the Joint Policing Committee with community-based CCTV?
14	Is there sufficient funding provided for community-based CCTV systems?
15	Do the local Gardaí support community-based CCTV?
16	How often would the local Gardaí call to examine recordings / images?
17	Do you think that these systems are more of a help in solving a crime after it has happened rather than in preventing it in the first instance?
18	Do you think that people feel safer when a scheme is in operation?

19	Do you see a role for traffic management with these schemes?
20	Should the scheme be expanded to include other areas of concern e.g. to catch or prevent fly tipping, litter, graffiti and so forth?
21	Have you considered the use of portable / mobile cameras that can easily be erected and removed for any purpose?
22	Is there a future for community-based CCTV or would a better option be a Garda monitored CCTV system covering appropriate locations in the area?
23	Is there a greater role to be played by the community with regard to their locality / environment e.g. from the perspective of security, safety, health, welfare and so forth?
24	Is there a need for further cameras in this area?
25	Do you think the public would welcome more cameras in the area?

Garda Crime Prevention Officer:

No.	Questions
1	What is your role with regard to community-based CCTV schemes?
2	Does it take up much of your time?
3	How is a decision made to determine whether a community-based CCTV system is required?
4	How many people are involved in the decision making process?
5	Is there an in-depth analysis of crime issues carried out in advance?
6	Are further analyses carried out periodically to monitor crime trends and the success or not of the scheme?
7	Do you have any concerns with regard to data protection issues?
8	Have any members of the public expressed concern to you, or other members of the Gardaí as far as you are aware, about privacy or other issues?
9	Do you think that the public support community-based CCTV?
10	Do you think that community-based CCTV systems are worthwhile and from what perspective?
11	Would you say that community-based CCTV empowers communities and provides a degree of self-responsibilisation for their own safety and security?
12	Do you think the public would welcome more cameras in the area?

13	Do the local Gardaí support community-based CCTV?
14	Should the CCTV system be monitored rather than just recorded?
15	Who should monitor the systems?
16	Would the Garda town centre CCTV systems be a better option?
17	Is there a need for further cameras in this area?
18	Do you see a role for traffic management with these schemes?
19	Should the scheme be expanded to include other areas of concern e.g. to catch or prevent fly tipping, litter, graffiti and so forth?
20	As a crime prevention officer, do you think that these schemes are a worthwhile crime prevention initiative or are they more of a help from an investigation perspective after a crime has been committed?
21	Do you think a multi-agency approach is the way forward for dealing with most issues in the community today and is community-based CCTV a good example of this?
22	Is there a greater role to be played by the community with regard to their locality / environment e.g. from the perspective of security, safety, health, welfare and so forth?

Member of CCTV Advisory Group:

No.	Questions
1	What is your role with regard to community-based CCTV schemes?
2	Can you tell me what role this groups has, what it does?
3	How many persons make up the CCTV Advisory Group?
4	What is the composition of the Group – from where do they come?
5	How often does it meet?
6	To whom does the Group report?
7	What are your views on community-based CCTV schemes?
8	Do you think these schemes are worthwhile and from what perspective?
9	Where is the support coming from for the installation of these schemes?

10	Is there much political influence or pressure?
11	Is there a government funding process in operation as there was heretofore?
12	What evaluation processes are in place – before installation, after installation, ongoing?
13	Have reviews been carried out on the accompanying guideline documents – technical specifications, code of practice?
14	Do you know if there is a training system in place for data controllers and operators/administrators? If so, is it robust?
15	Do you have any concerns with regard to data protection issues?
16	Are you aware of any problems with regard to privacy issues? – members of the public, Gardaí?
17	Do you think that the public support community-based CCTV?
18	Do the local Gardaí support community-based CCTV?
19	Should all systems be monitored rather than just recorded?
20	Do you think that these schemes are a worthwhile crime prevention initiative or are they more of a help from an investigation perspective after a crime has been committed?
21	Do you see a role for traffic management with these schemes?
22	Should the scheme be expanded to include other areas of concern e.g. to catch or prevent fly tipping, litter, graffiti and so forth?
23	What are your views on the use of portable / mobile cameras that can easily be erected and removed at short notice?
24	Do you think a multi-agency approach is the way forward for dealing with most issues in the community today and is community-based CCTV a good example of this?
25	Is there a greater role to be played by the community with regard to their locality / environment e.g. from the perspective of security, safety, health, welfare and so forth?
26	Where do you see these schemes going into the future?

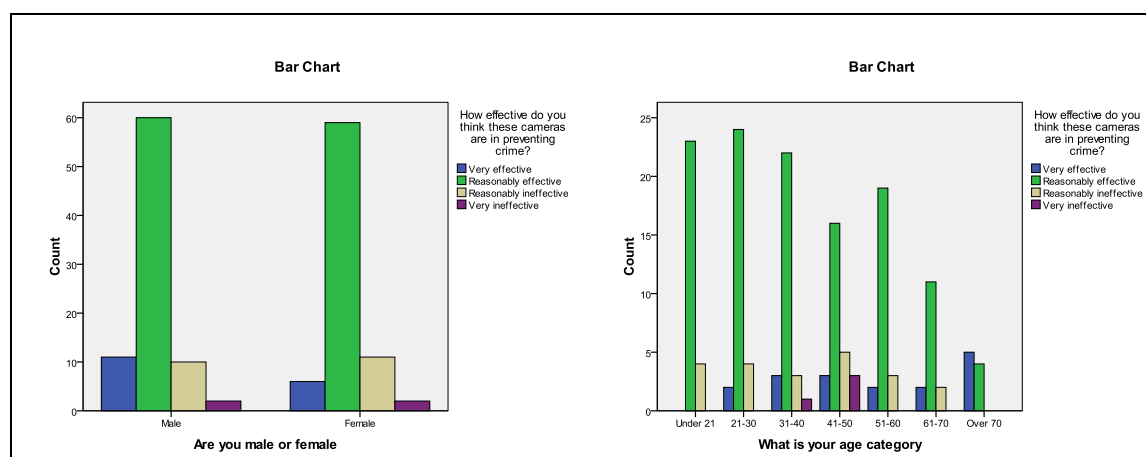
Crosstabulations

1. Effectiveness in preventing crime

(Question: How effective do you think these cameras are in preventing crime?)

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Male	Count	11	60	10	2	83
	Percent	13.3%	72.3%	12.0%	2.4%	100.0%
Female	Count	6	59	11	2	78
	Percent	7.7%	75.6%	14.1%	2.6%	100.0%
Total	Count	17	119	21	4	161
	Percent	10.6%	73.9%	13.0%	2.5%	100.0%

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Under 21	Count	0	23	4	0	27
	Percent	.0%	85.2%	14.8%	.0%	100.0%
21-30	Count	2	24	4	0	30
	Percent	6.7%	80.0%	13.3%	.0%	100.0%
31-40	Count	3	22	3	1	29
	Percent	10.3%	75.9%	10.3%	3.4%	100.0%
41-50	Count	3	16	5	3	27
	Percent	11.1%	59.3%	18.5%	11.1%	100.0%
51-60	Count	2	19	3	0	24
	Percent	8.3%	79.2%	12.5%	.0%	100.0%
61-70	Count	2	11	2	0	15
	Percent	13.3%	73.3%	13.3%	.0%	100.0%
Over 70	Count	5	4	0	0	9
	Percent	55.6%	44.4%	.0%	.0%	100.0%
Total	Count	17	119	21	4	161
	Percent	10.6%	73.9%	13.0%	2.5%	100.0%

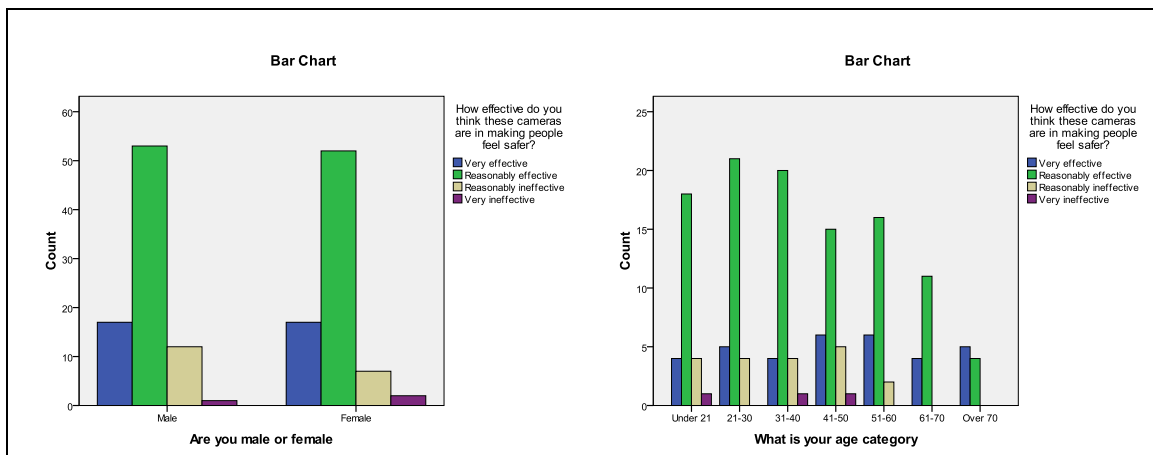


2. Effectiveness in making people feel safer

(Question: How effective do you think these cameras are in making people feel safer?)

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Male	Count	17	53	12	1	83
	Percent	20.5%	63.9%	14.5%	1.2%	100.0%
Female	Count	17	52	7	2	78
	Percent	21.8%	66.7%	9.0%	2.6%	100.0%
Total	Count	34	105	19	3	161
	Percent	21.1%	65.2%	11.8%	1.9%	100.0%

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Under 21	Count	4	18	4	1	27
	Percent	14.8%	66.7%	14.8%	3.7%	100.0%
21-30	Count	5	21	4	0	30
	Percent	16.7%	70.0%	13.3%	.0%	100.0%
31-40	Count	4	20	4	1	29
	Percent	13.8%	69.0%	13.8%	3.4%	100.0%
41-50	Count	6	15	5	1	27
	Percent	22.2%	55.6%	18.5%	3.7%	100.0%
51-60	Count	6	16	2	0	24
	Percent	25.0%	66.7%	8.3%	.0%	100.0%
61-70	Count	4	11	0	0	15
	Percent	26.7%	73.3%	.0%	.0%	100.0%
Over 70	Count	5	4	0	0	9
	Percent	55.6%	44.4%	.0%	.0%	100.0%
Total	Count	34	105	19	3	161
	Percent	21.1%	65.2%	11.8%	1.9%	100.0%

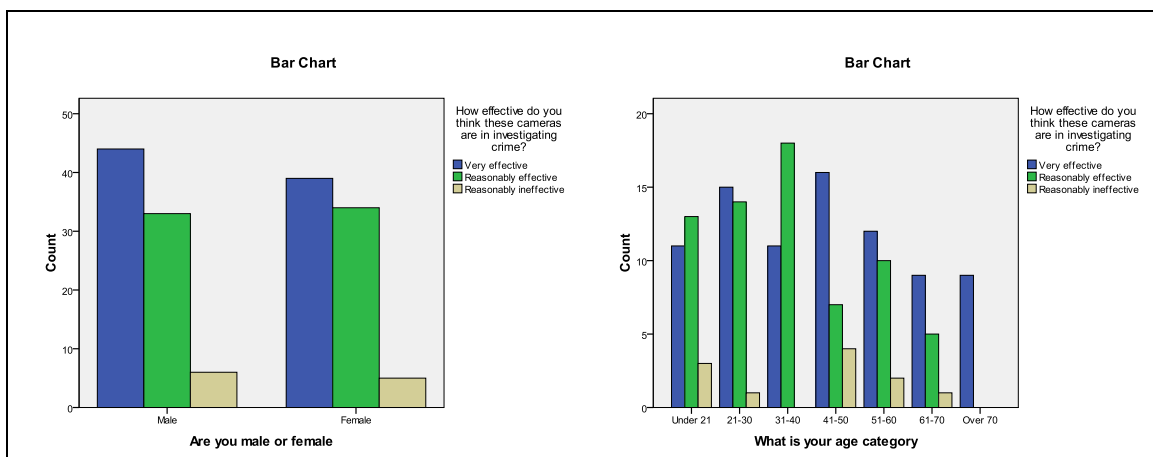


3. Effectiveness in investigating crime

(Question: How effective do you think these cameras are in investigating crime?)

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Male	Count	44	33	6	0	83
	Percent	53.0%	39.8%	7.2%	.0%	100.0%
Female	Count	39	34	5	0	78
	Percent	50.0%	43.6%	6.4%	.0%	100.0%
Total	Count	83	67	11	0	161
	Percent	51.6%	41.6%	6.8%	.0%	100.0%

		Very effective	Reasonably effective	Reasonably ineffective	Very ineffective	Total
Under 21	Count	11	13	3	0	27
	Percent	40.7%	48.1%	11.1%	.0%	100.0%
21-30	Count	15	14	1	0	30
	Percent	50.0%	46.7%	3.3%	.0%	100.0%
31-40	Count	11	18	0	0	29
	Percent	37.9%	62.1%	.0%	.0%	100.0%
41-50	Count	16	7	4	0	27
	Percent	59.3%	25.9%	14.8%	.0%	100.0%
51-60	Count	12	10	2	0	24
	Percent	50.0%	41.7%	8.3%	.0%	100.0%
61-70	Count	9	5	1	0	15
	Percent	60.0%	33.3%	6.7%	.0%	100.0%
Over 70	Count	9	0	0	0	9
	Percent	100.0%	.0%	.0%	.0%	100.0%
Total	Count	83	67	11	0	161
	Percent	51.6%	41.6%	6.8%	.0%	100.0%

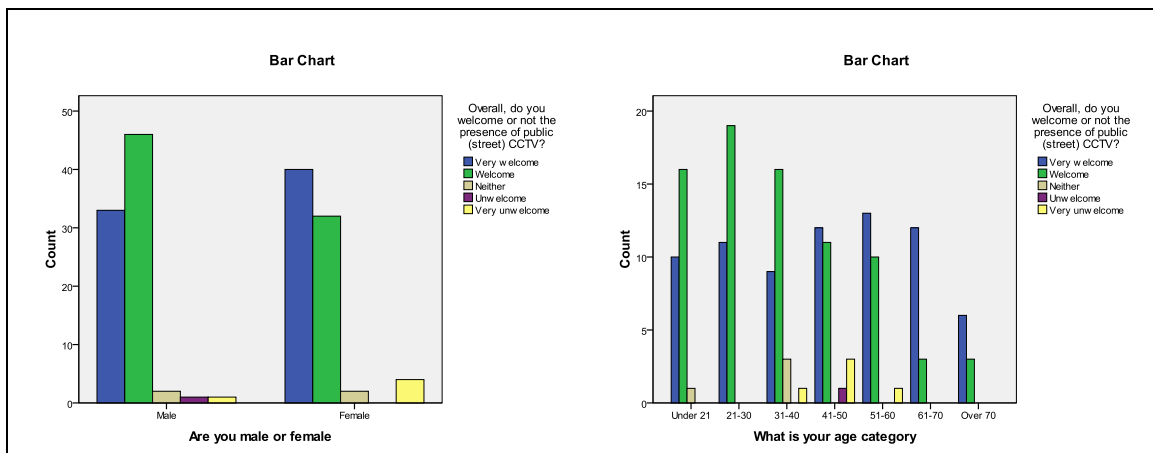


4. Welcome for CCTV

(Question: Overall, do you welcome or not the presence of public (street) CCTV?)

		Very welcome	Welcome	Neither	Unwelcome	Very unwelcome	Total
Male	Count	33	46	2	1	1	83
	Percent	39.8%	55.4%	2.4%	1.2%	1.2%	100.0%
Female	Count	40	32	2	0	4	78
	Percent	51.3%	41.0%	2.6%	.0%	5.1%	100.0%
Total	Count	73	78	4	1	5	161
	Percent	45.3%	48.4%	2.5%	.6%	3.1%	100.0%

		Very welcome	Welcome	Neither	Unwelcome	Very unwelcome	Total
Under 21	Count	10	16	1	0	0	27
	Percent	37.0%	59.3%	3.7%	.0%	.0%	100.0%
21-30	Count	11	19	0	0	0	30
	Percent	36.7%	63.3%	.0%	.0%	.0%	100.0%
31-40	Count	9	16	3	0	1	29
	Percent	31.0%	55.2%	10.3%	.0%	3.4%	100.0%
41-50	Count	12	11	0	1	3	27
	Percent	44.4%	40.7%	.0%	3.7%	11.1%	100.0%
51-60	Count	13	10	0	0	1	24
	Percent	54.2%	41.7%	.0%	.0%	4.2%	100.0%
61-70	Count	12	3	0	0	0	15
	Percent	80.0%	20.0%	.0%	.0%	.0%	100.0%
Over 70	Count	6	3	0	0	0	9
	Percent	66.7%	33.3%	.0%	.0%	.0%	100.0%
Total	Count	73	78	4	1	5	161
	Percent	45.3%	48.4%	2.5%	.6%	3.1%	100.0%

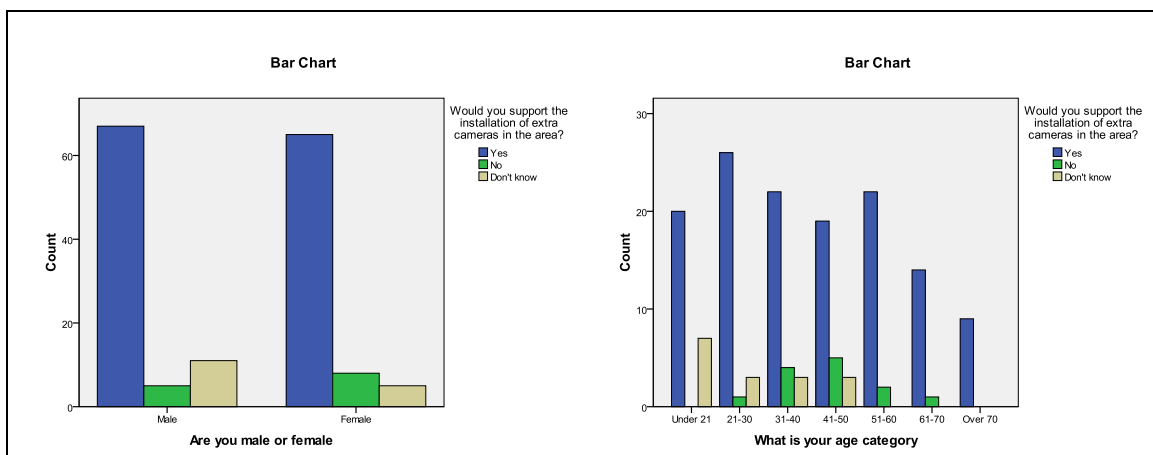


5. Support for extra cameras

(Question: Would you support the installation of extra cameras in the area?)

		Yes	No	Don't know	Total
Male	Count	67	5	11	83
	Percent	80.7%	6.0%	13.3%	100.0%
Female	Count	65	8	5	78
	Percent	83.3%	10.3%	6.4%	100.0%
Total	Count	132	13	16	161
	Percent	82.0%	8.1%	9.9%	100.0%

		Yes	No	Don't know	Total
Under 21	Count	20	0	7	27
	Percent	74.1%	.0%	25.9%	100.0%
21-30	Count	26	1	3	30
	Percent	86.7%	3.3%	10.0%	100.0%
31-40	Count	22	4	3	29
	Percent	75.9%	13.8%	10.3%	100.0%
41-50	Count	19	5	3	27
	Percent	70.4%	18.5%	11.1%	100.0%
51-60	Count	22	2	0	24
	Percent	91.7%	8.3%	.0%	100.0%
61-70	Count	14	1	0	15
	Percent	93.3%	6.7%	.0%	100.0%
Over 70	Count	9	0	0	9
	Percent	100.0%	.0%	.0%	100.0%
Total	Count	132	13	16	161
	Percent	82.0%	8.1%	9.9%	100.0%

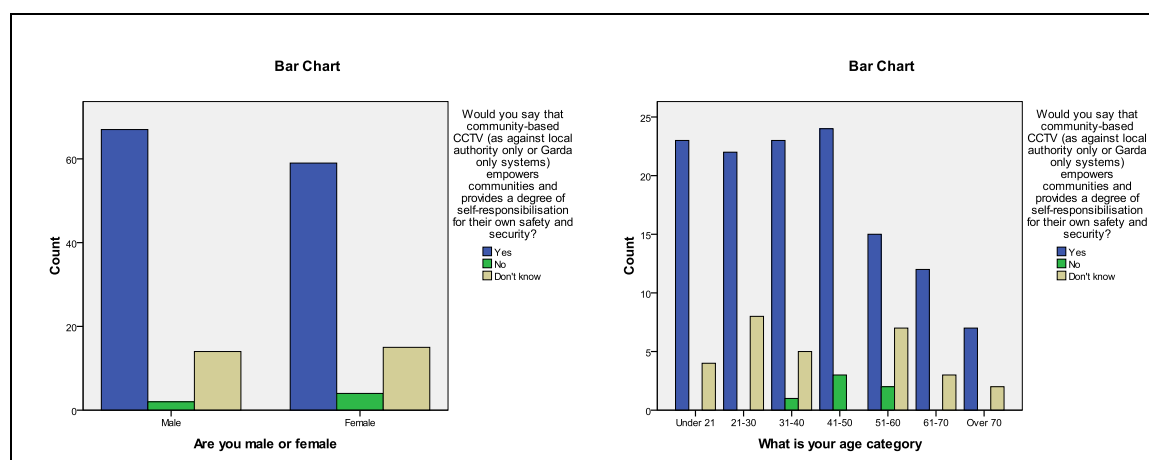


6. Empowerment and self-responsibilisation

(Question: Would you say that community-based CCTV (as against local authority only or Garda only systems) empowers communities and provides a degree of self-responsibilisation for their own safety and security?)

		Yes	No	Don't know	Total
Male	Count	67	2	14	83
	Percent	80.7%	2.4%	16.9%	100.0%
Female	Count	59	4	15	78
	Percent	75.6%	5.1%	19.2%	100.0%
Total	Count	126	6	29	161
	Percent	78.3%	3.7%	18.0%	100.0%

		Yes	No	Don't know	Total
Under 21	Count	23	0	4	27
	Percent	85.2%	.0%	14.8%	100.0%
21-30	Count	22	0	8	30
	Percent	73.3%	.0%	26.7%	100.0%
31-40	Count	23	1	5	29
	Percent	79.3%	3.4%	17.2%	100.0%
41-50	Count	24	3	0	27
	Percent	88.9%	11.1%	.0%	100.0%
51-60	Count	15	2	7	24
	Percent	62.5%	8.3%	29.2%	100.0%
61-70	Count	12	0	3	15
	Percent	80.0%	.0%	20.0%	100.0%
Over 70	Count	7	0	2	9
	Percent	77.8%	.0%	22.2%	100.0%
Total	Count	126	6	29	161
	Percent	78.3%	3.7%	18.0%	100.0%

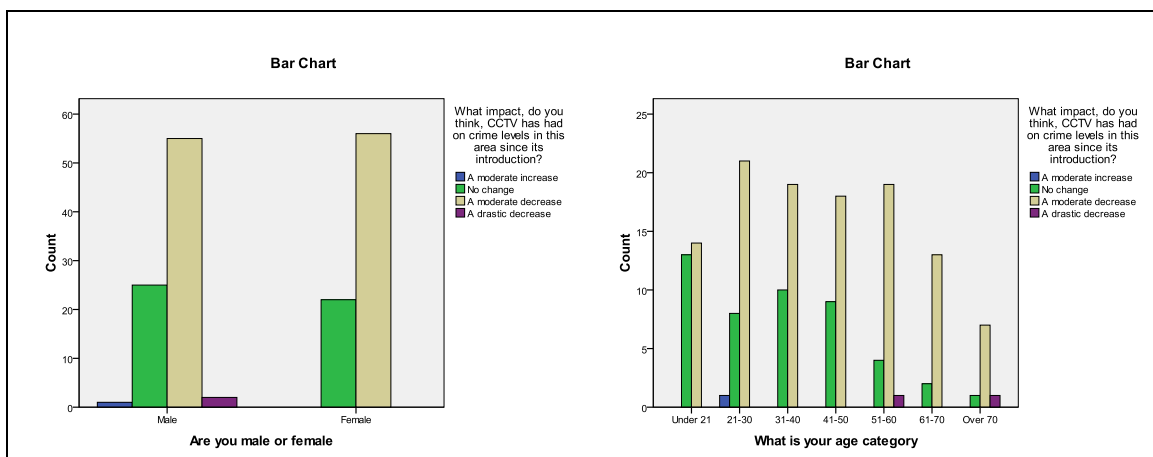


7. Impact on Crime levels

(Question: What impact, do you think, CCTV has had on crime levels in this area since its introduction?)

		A moderate increase	No change	A moderate decrease	A drastic decrease	Total
Male	Count	1	25	55	2	83
	Percent	1.2%	30.1%	66.3%	2.4%	100.0%
Female	Count	0	22	56	0	78
	Percent	.0%	28.2%	71.8%	.0%	100.0%
Total	Count	1	47	111	2	161
	Percent	.6%	29.2%	68.9%	1.2%	100.0%

		A moderate increase	No change	A moderate decrease	A drastic decrease	Total
Under 21	Count	0	13	14	0	27
	Percent	.0%	48.1%	51.9%	.0%	100.0%
21-30	Count	1	8	21	0	30
	Percent	3.3%	26.7%	70.0%	.0%	100.0%
31-40	Count	0	10	19	0	29
	Percent	.0%	34.5%	65.5%	.0%	100.0%
41-50	Count	0	9	18	0	27
	Percent	.0%	33.3%	66.7%	.0%	100.0%
51-60	Count	0	4	19	1	24
	Percent	.0%	16.7%	79.2%	4.2%	100.0%
61-70	Count	0	2	13	0	15
	Percent	.0%	13.3%	86.7%	.0%	100.0%
Over 70	Count	0	1	7	1	9
	Percent	.0%	11.1%	77.8%	11.1%	100.0%
Total	Count	1	47	111	2	161
	Percent	.6%	29.2%	68.9%	1.2%	100.0%

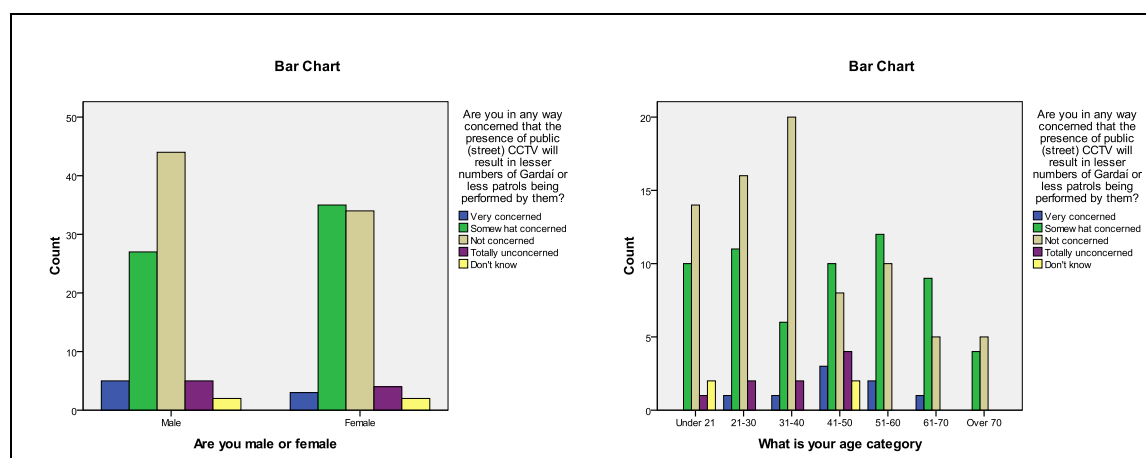


8. Concerns regarding Garda resources and attention

(Question: Are you in any way concerned that the presence of public (street) CCTV will result in lesser numbers of Gardai or less patrols being performed by them?)

		Very concerned	Somewhat concerned	Not concerned	Totally unconcerned	Don't know	Total
Male	Count	5	27	44	5	2	83
	Percent	6.0%	32.5%	53.0%	6.0%	2.4%	100.0%
Female	Count	3	35	34	4	2	78
	Percent	3.8%	44.9%	43.6%	5.1%	2.6%	100.0%
Total	Count	8	62	78	9	4	161
	Percent	5.0%	38.5%	48.4%	5.6%	2.5%	100.0%

		Very concerned	Somewhat concerned	Not concerned	Totally unconcerned	Don't know	Total
Under 21	Count	0	10	14	1	2	27
	Percent	.0%	37.0%	51.9%	3.7%	7.4%	100.0%
21-30	Count	1	11	16	2	0	30
	Percent	3.3%	36.7%	53.3%	6.7%	.0%	100.0%
31-40	Count	1	6	20	2	0	29
	Percent	3.4%	20.7%	69.0%	6.9%	.0%	100.0%
41-50	Count	3	10	8	4	2	27
	Percent	11.1%	37.0%	29.6%	14.8%	7.4%	100.0%
51-60	Count	2	12	10	0	0	24
	Percent	8.3%	50.0%	41.7%	.0%	.0%	100.0%
61-70	Count	1	9	5	0	0	15
	Percent	6.7%	60.0%	33.3%	.0%	.0%	100.0%
Over 70	Count	0	4	5	0	0	9
	Percent	.0%	44.4%	55.6%	.0%	.0%	100.0%
Total	Count	8	62	78	9	4	161
	Percent	5.0%	38.5%	48.4%	5.6%	2.5%	100.0%

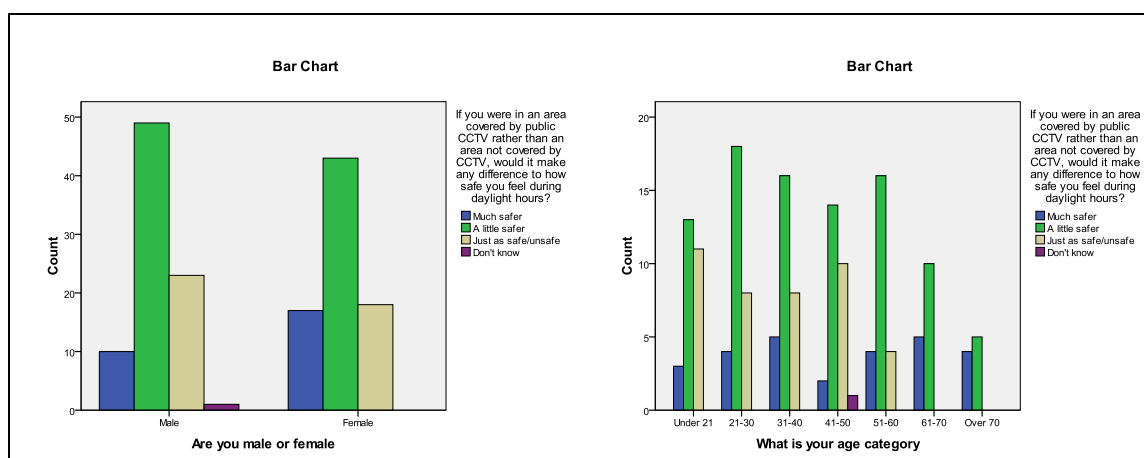


9. Feelings of safety during daylight hours

(Question: If you were in an area covered by public CCTV rather than an area not covered by CCTV, would it make any difference to how safe you feel during daylight hours?)

		Much safer	A little safer	Just as safe/unsafe	Don't know	Total
Male	Count	10	49	23	1	83
	Percent	12.0%	59.0%	27.7%	1.2%	100.0%
Female	Count	17	43	18	0	78
	Percent	21.8%	55.1%	23.1%	.0%	100.0%
Total	Count	27	92	41	1	161
	Percent	16.8%	57.1%	25.5%	.6%	100.0%

		Much safer	A little safer	Just as safe/unsafe	Don't know	Total
Under 21	Count	3	13	11	0	27
	Percent	11.1%	48.1%	40.7%	.0%	100.0%
21-30	Count	4	18	8	0	30
	Percent	13.3%	60.0%	26.7%	.0%	100.0%
31-40	Count	5	16	8	0	29
	Percent	17.2%	55.2%	27.6%	.0%	100.0%
41-50	Count	2	14	10	1	27
	Percent	7.4%	51.9%	37.0%	3.7%	100.0%
51-60	Count	4	16	4	0	24
	Percent	16.7%	66.7%	16.7%	.0%	100.0%
61-70	Count	5	10	0	0	15
	Percent	33.3%	66.7%	.0%	.0%	100.0%
Over 70	Count	4	5	0	0	9
	Percent	44.4%	55.6%	.0%	.0%	100.0%
Total	Count	27	92	41	1	161
	Percent	16.8%	57.1%	25.5%	.6%	100.0%

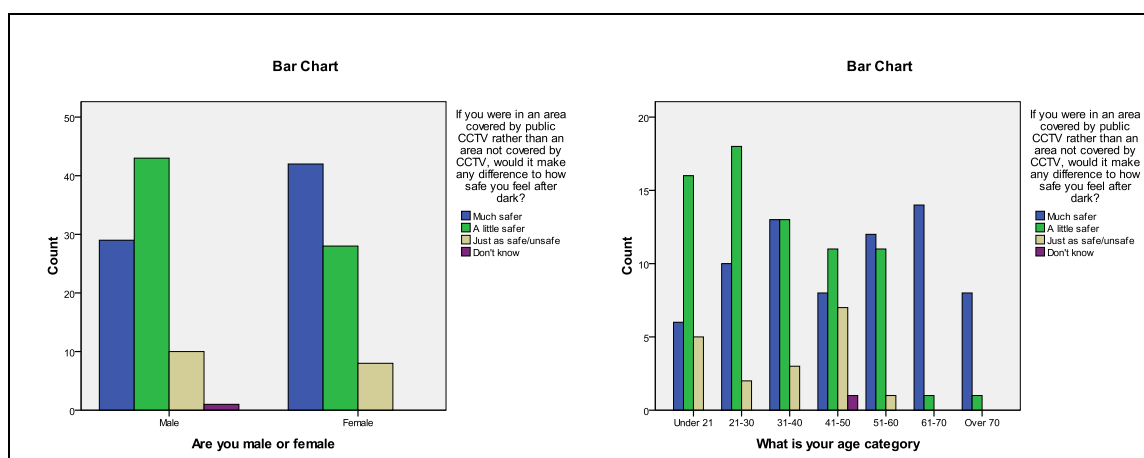


10. Feelings of safety after dark

(Question: If you were in an area covered by public CCTV rather than an area not covered by CCTV, would it make any difference to how safe you feel after dark?)

		Much safer	A little safer	Just as safe/unsafe	Don't know	Total
Male	Count	29	43	10	1	83
	Percent	34.9%	51.8%	12.0%	1.2%	100.0%
Female	Count	42	28	8	0	78
	Percent	53.8%	35.9%	10.3%	.0%	100.0%
Total	Count	71	71	18	1	161
	Percent	44.1%	44.1%	11.2%	.6%	100.0%

		Much safer	A little safer	Just as safe/unsafe	Don't know	Total
Under 21	Count	6	16	5	0	27
	Percent	22.2%	59.3%	18.5%	.0%	100.0%
21-30	Count	10	18	2	0	30
	Percent	33.3%	60.0%	6.7%	.0%	100.0%
31-40	Count	13	13	3	0	29
	Percent	44.8%	44.8%	10.3%	.0%	100.0%
41-50	Count	8	11	7	1	27
	Percent	29.6%	40.7%	25.9%	3.7%	100.0%
51-60	Count	12	11	1	0	24
	Percent	50.0%	45.8%	4.2%	.0%	100.0%
61-70	Count	14	1	0	0	15
	Percent	93.3%	6.7%	.0%	.0%	100.0%
Over 70	Count	8	1	0	0	9
	Percent	88.9%	11.1%	.0%	.0%	100.0%
Total	Count	71	71	18	1	161
	Percent	44.1%	44.1%	11.2%	.6%	100.0%

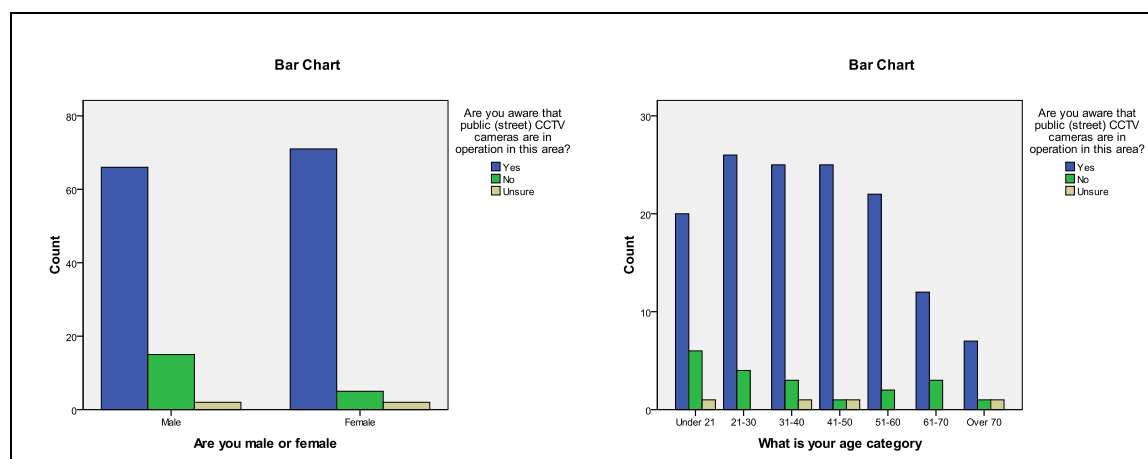


11. Awareness of the system

(Question: Are you aware that public (street) CCTV systems are in operation in this area?)

		Yes	No	Unsure	Total
Male	Count	66	15	2	83
	Percent	79.5%	18.1%	2.4%	100.0%
Female	Count	71	5	2	78
	Percent	91.0%	6.4%	2.6%	100.0%
Total	Count	137	20	4	161
	Percent	85.1%	12.4%	2.5%	100.0%

		Yes	No	Unsure	Total
Under 21	Count	20	6	1	27
	Percent	74.1%	22.2%	3.7%	100.0%
21-30	Count	26	4	0	30
	Percent	86.7%	13.3%	.0%	100.0%
31-40	Count	25	3	1	29
	Percent	86.2%	10.3%	3.4%	100.0%
41-50	Count	25	1	1	27
	Percent	92.6%	3.7%	3.7%	100.0%
51-60	Count	22	2	0	24
	Percent	91.7%	8.3%	.0%	100.0%
61-70	Count	12	3	0	15
	Percent	80.0%	20.0%	.0%	100.0%
Over 70	Count	7	1	1	9
	Percent	77.8%	11.1%	11.1%	100.0%
Total	Count	137	20	4	161
	Percent	85.1%	12.4%	2.5%	100.0%

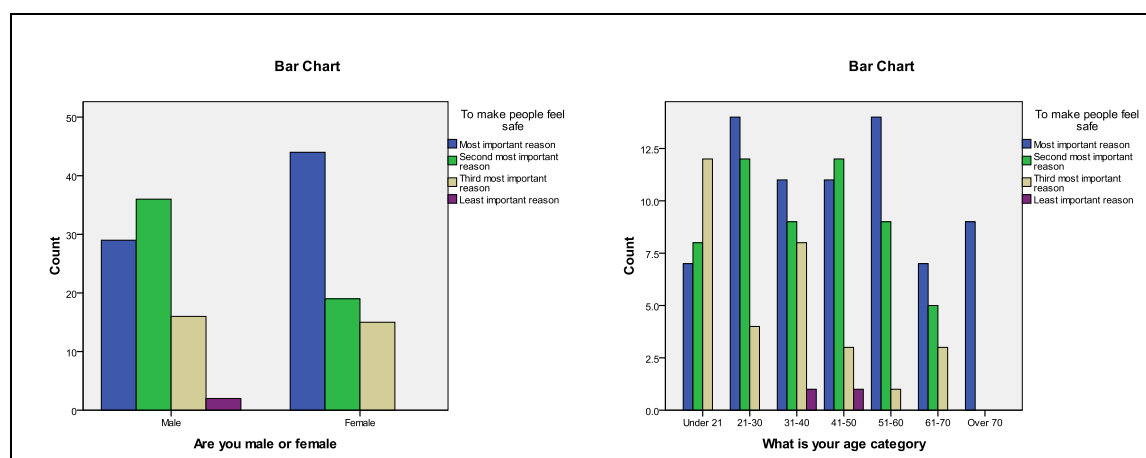


12. Reason to use these cameras – make people feel safe

(Question: Rank in order of priority from 1 to 4 (1 being the most important), the reasons why these cameras should be used?)

		Most important	2 nd most important	3 rd most important	Least important	Total
Male	Count	29	36	16	2	83
	Percent	34.9%	43.4%	19.3%	2.4%	100.0%
Female	Count	44	19	15	0	78
	Percent	56.4%	24.4%	19.2%	.0%	100.0%
Total	Count	73	55	31	2	161
	Percent	45.3%	34.2%	19.3%	1.2%	100.0%

		Most important	2 nd most important	3 rd most important	Least important	Total
Under 21	Count	7	8	12	0	27
	Percent	25.9%	29.6%	44.4%	.0%	100.0%
21-30	Count	14	12	4	0	30
	Percent	46.7%	40.0%	13.3%	.0%	100.0%
31-40	Count	11	9	8	1	29
	Percent	37.9%	31.0%	27.6%	3.4%	100.0%
41-50	Count	11	12	3	1	27
	Percent	40.7%	44.4%	11.1%	3.7%	100.0%
51-60	Count	14	9	1	0	24
	Percent	58.3%	37.5%	4.2%	.0%	100.0%
61-70	Count	7	5	3	0	15
	Percent	46.7%	33.3%	20.0%	.0%	100.0%
Over 70	Count	9	0	0	0	9
	Percent	100.0%	.0%	.0%	.0%	100.0%
Total	Count	73	55	31	2	161
	Percent	45.3%	34.2%	19.3%	1.2%	100.0%

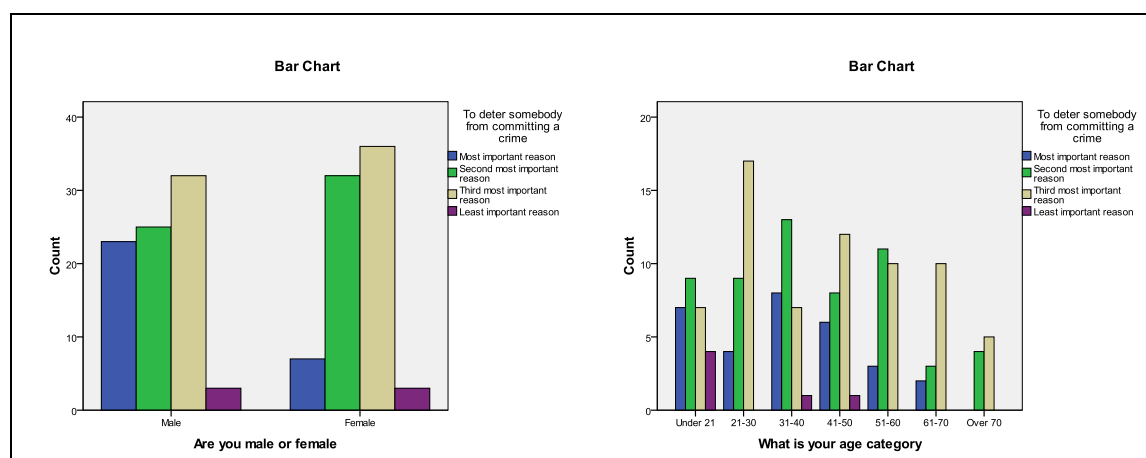


13. Reason to use these cameras – deter from committing crime

(Question: Rank in order of priority from 1 to 4 (1 being the most important), the reasons why these cameras should be used?)

		Most important	2 nd most important	3 rd most important	Least important	Total
Male	Count	23	25	32	3	83
	Percent	27.7%	30.1%	38.6%	3.6%	100.0%
Female	Count	7	32	36	3	78
	Percent	9.0%	41.0%	46.2%	3.8%	100.0%
Total	Count	30	57	68	6	161
	Percent	18.6%	35.4%	42.2%	3.7%	100.0%

		Most important	2 nd most important	3 rd most important	Least important	Total
Under 21	Count	7	9	7	4	27
	Percent	25.9%	33.3%	25.9%	14.8%	100.0%
21-30	Count	4	9	17	0	30
	Percent	13.3%	30.0%	56.7%	.0%	100.0%
31-40	Count	8	13	7	1	29
	Percent	27.6%	44.8%	24.1%	3.4%	100.0%
41-50	Count	6	8	12	1	27
	Percent	22.2%	29.6%	44.4%	3.7%	100.0%
51-60	Count	3	11	10	0	24
	Percent	12.5%	45.8%	41.7%	.0%	100.0%
61-70	Count	2	3	10	0	15
	Percent	13.3%	20.0%	66.7%	.0%	100.0%
Over 70	Count	0	4	5	0	9
	Percent	.0%	44.4%	55.6%	.0%	100.0%
Total	Count	30	57	68	6	161
	Percent	18.6%	35.4%	42.2%	3.7%	100.0%

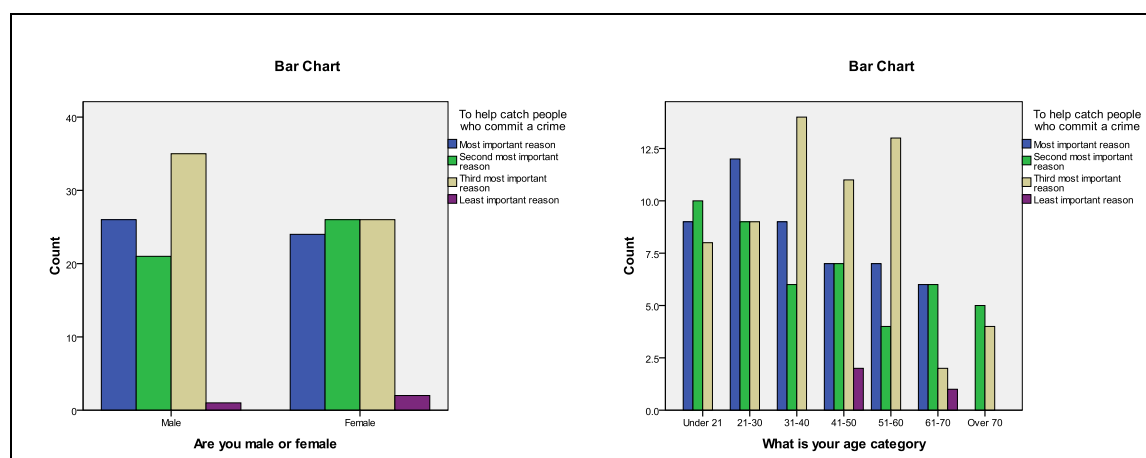


14. Reason to use these cameras – catch people committing crime

(Question: Rank in order of priority from 1 to 4 (1 being the most important), the reasons why these cameras should be used?)

		Most important	2 nd most important	3 rd most important	Least important	Total
Male	Count	26	21	35	1	83
	Percent	31.3%	25.3%	42.2%	1.2%	100.0%
Female	Count	24	26	26	2	78
	Percent	30.8%	33.3%	33.3%	2.6%	100.0%
Total	Count	50	47	61	3	161
	Percent	31.1%	29.2%	37.9%	1.9%	100.0%

		Most important	2 nd most important	3 rd most important	Least important	Total
Under 21	Count	9	10	8	0	27
	Percent	33.3%	37.0%	29.6%	.0%	100.0%
21-30	Count	12	9	9	0	30
	Percent	40.0%	30.0%	30.0%	.0%	100.0%
31-40	Count	9	6	14	0	29
	Percent	31.0%	20.7%	48.3%	.0%	100.0%
41-50	Count	7	7	11	2	27
	Percent	25.9%	25.9%	40.7%	7.4%	100.0%
51-60	Count	7	4	13	0	24
	Percent	29.2%	16.7%	54.2%	.0%	100.0%
61-70	Count	6	6	2	1	15
	Percent	40.0%	40.0%	13.3%	6.7%	100.0%
Over 70	Count	0	5	4	0	9
	Percent	.0%	55.6%	44.4%	.0%	100.0%
Total	Count	50	47	61	3	161
	Percent	31.1%	29.2%	37.9%	1.9%	100.0%

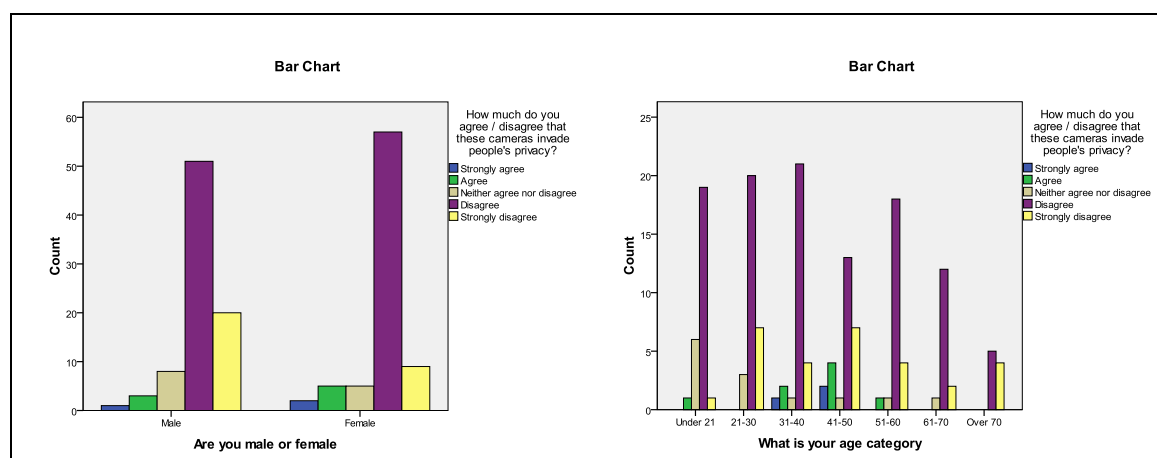


15. Perception and Attitudes – invasion of privacy

(Statement: These cameras invade people's privacy)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	1	3	8	51	20	83
	Percent	1.2%	3.6%	9.6%	61.4%	24.1%	100.0%
Female	Count	2	5	5	57	9	78
	Percent	2.6%	6.4%	6.4%	73.1%	11.5%	100.0%
Total	Count	3	8	13	108	29	161
	Percent	1.9%	5.0%	8.1%	67.1%	18.0%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	1	6	19	1	27
	Percent	.0%	3.7%	22.2%	70.4%	3.7%	100.0%
21-30	Count	0	0	3	20	7	30
	Percent	.0%	.0%	10.0%	66.7%	23.3%	100.0%
31-40	Count	1	2	1	21	4	29
	Percent	3.4%	6.9%	3.4%	72.4%	13.8%	100.0%
41-50	Count	2	4	1	13	7	27
	Percent	7.4%	14.8%	3.7%	48.1%	25.9%	100.0%
51-60	Count	0	1	1	18	4	24
	Percent	.0%	4.2%	4.2%	75.0%	16.7%	100.0%
61-70	Count	0	0	1	12	2	15
	Percent	.0%	.0%	6.7%	80.0%	13.3%	100.0%
Over 70	Count	0	0	0	5	4	9
	Percent	.0%	.0%	.0%	55.6%	44.4%	100.0%
Total	Count	3	8	13	108	29	161
	Percent	1.9%	5.0%	8.1%	67.1%	18.0%	100.0%

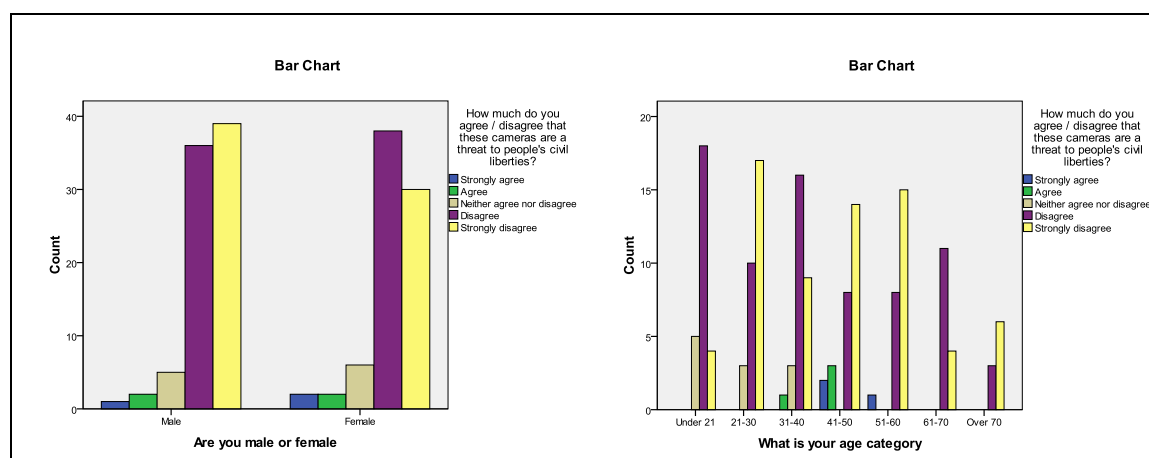


16. Perception and Attitudes – threat to civil liberties

(Statement: These cameras are a threat to people's civil liberties)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	1	2	5	36	39	83
	Percent	1.2%	2.4%	6.0%	43.4%	47.0%	100.0%
Female	Count	2	2	6	38	30	78
	Percent	2.6%	2.6%	7.7%	48.7%	38.5%	100.0%
Total	Count	3	4	11	74	69	161
	Percent	1.9%	2.5%	6.8%	46.0%	42.9%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	0	5	18	4	27
	Percent	.0%	.0%	18.5%	66.7%	14.8%	100.0%
21-30	Count	0	0	3	10	17	30
	Percent	.0%	.0%	10.0%	33.3%	56.7%	100.0%
31-40	Count	0	1	3	16	9	29
	Percent	.0%	3.4%	10.3%	55.2%	31.0%	100.0%
41-50	Count	2	3	0	8	14	27
	Percent	7.4%	11.1%	.0%	29.6%	51.9%	100.0%
51-60	Count	1	0	0	8	15	24
	Percent	4.2%	.0%	.0%	33.3%	62.5%	100.0%
61-70	Count	0	0	0	11	4	15
	Percent	.0%	.0%	.0%	73.3%	26.7%	100.0%
Over 70	Count	0	0	0	3	6	9
	Percent	.0%	.0%	.0%	33.3%	66.7%	100.0%
Total	Count	3	4	11	74	69	161
	Percent	1.9%	2.5%	6.8%	46.0%	42.9%	100.0%

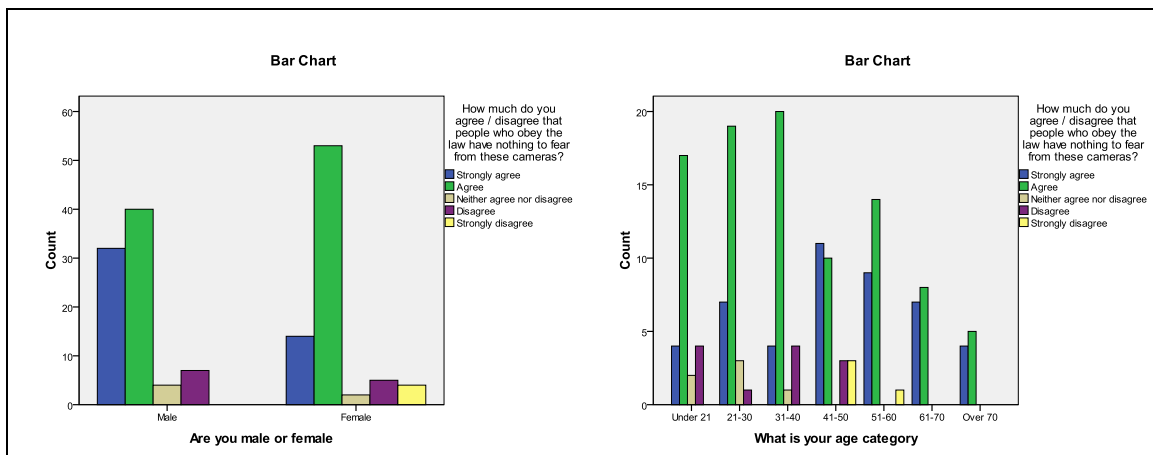


17. Perception and Attitudes – obey law / nothing to fear

(Statement: People who obey the law have nothing to fear from these cameras)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	32	40	4	7	0	83
	Percent	38.6%	48.2%	4.8%	8.4%	.0%	100.0%
Female	Count	14	53	2	5	4	78
	Percent	17.9%	67.9%	2.6%	6.4%	5.1%	100.0%
Total	Count	46	93	6	12	4	161
	Percent	28.6%	57.8%	3.7%	7.5%	2.5%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	4	17	2	4	0	27
	Percent	14.8%	63.0%	7.4%	14.8%	.0%	100.0%
21-30	Count	7	19	3	1	0	30
	Percent	23.3%	63.3%	10.0%	3.3%	.0%	100.0%
31-40	Count	4	20	1	4	0	29
	Percent	13.8%	69.0%	3.4%	13.8%	.0%	100.0%
41-50	Count	11	10	0	3	3	27
	Percent	40.7%	37.0%	.0%	11.1%	11.1%	100.0%
51-60	Count	9	14	0	0	1	24
	Percent	37.5%	58.3%	.0%	.0%	4.2%	100.0%
61-70	Count	7	8	0	0	0	15
	Percent	46.7%	53.3%	.0%	.0%	.0%	100.0%
Over 70	Count	4	5	0	0	0	9
	Percent	44.4%	55.6%	.0%	.0%	.0%	100.0%
Total	Count	46	93	6	12	4	161
	Percent	28.6%	57.8%	3.7%	7.5%	2.5%	100.0%

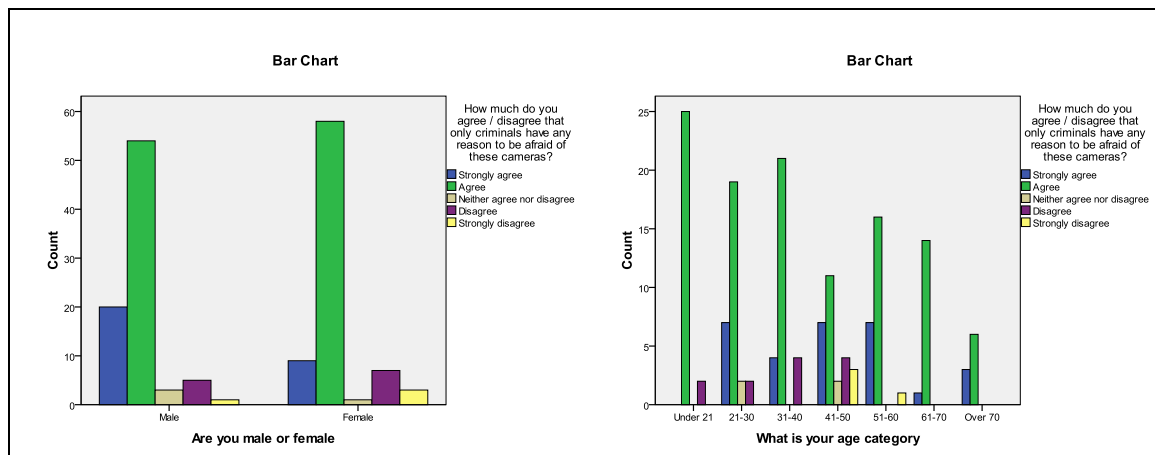


18. Perception and Attitudes – invasion of privacy

(Statement: Only criminals have any reason to be afraid of these cameras)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	20	54	3	5	1	83
	Percent	24.1%	65.1%	3.6%	6.0%	1.2%	100.0%
Female	Count	9	58	1	7	3	78
	Percent	11.5%	74.4%	1.3%	9.0%	3.8%	100.0%
Total	Count	29	112	4	12	4	161
	Percent	18.0%	69.6%	2.5%	7.5%	2.5%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	25	0	2	0	27
	Percent	.0%	92.6%	.0%	7.4%	.0%	100.0%
21-30	Count	7	19	2	2	0	30
	Percent	23.3%	63.3%	6.7%	6.7%	.0%	100.0%
31-40	Count	4	21	0	4	0	29
	Percent	13.8%	72.4%	.0%	13.8%	.0%	100.0%
41-50	Count	7	11	2	4	3	27
	Percent	25.9%	40.7%	7.4%	14.8%	11.1%	100.0%
51-60	Count	7	16	0	0	1	24
	Percent	29.2%	66.7%	.0%	.0%	4.2%	100.0%
61-70	Count	1	14	0	0	0	15
	Percent	6.7%	93.3%	.0%	.0%	.0%	100.0%
Over 70	Count	3	6	0	0	0	9
	Percent	33.3%	66.7%	.0%	.0%	.0%	100.0%
Total	Count	29	112	4	12	4	161
	Percent	18.0%	69.6%	2.5%	7.5%	2.5%	100.0%

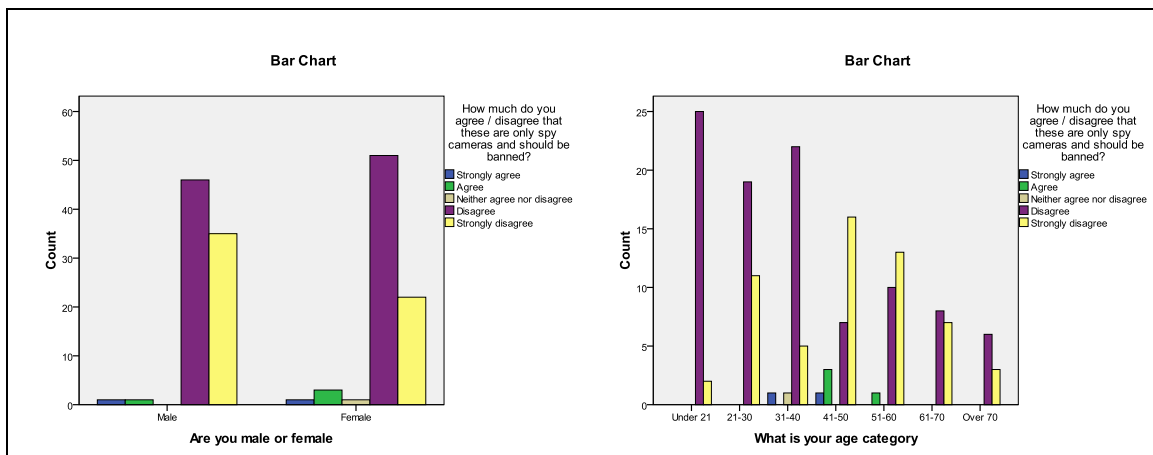


19. Perception and Attitudes – spy cameras that should be banned

(Statement: These are only spy cameras that should be banned)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	1	1	0	46	35	83
	Percent	1.2%	1.2%	.0%	55.4%	42.2%	100.0%
Female	Count	1	3	1	51	22	78
	Percent	1.3%	3.8%	1.3%	65.4%	28.2%	100.0%
Total	Count	2	4	1	97	57	161
	Percent	1.2%	2.5%	.6%	60.2%	35.4%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	0	0	25	2	27
	Percent	.0%	.0%	.0%	92.6%	7.4%	100.0%
21-30	Count	0	0	0	19	11	30
	Percent	.0%	.0%	.0%	63.3%	36.7%	100.0%
31-40	Count	1	0	1	22	5	29
	Percent	3.4%	.0%	3.4%	75.9%	17.2%	100.0%
41-50	Count	1	3	0	7	16	27
	Percent	3.7%	11.1%	.0%	25.9%	59.3%	100.0%
51-60	Count	0	1	0	10	13	24
	Percent	.0%	4.2%	.0%	41.7%	54.2%	100.0%
61-70	Count	0	0	0	8	7	15
	Percent	.0%	.0%	.0%	53.3%	46.7%	100.0%
Over 70	Count	0	0	0	6	3	9
	Percent	.0%	.0%	.0%	66.7%	33.3%	100.0%
Total	Count	2	4	1	97	57	161
	Percent	1.2%	2.5%	.6%	60.2%	35.4%	100.0%

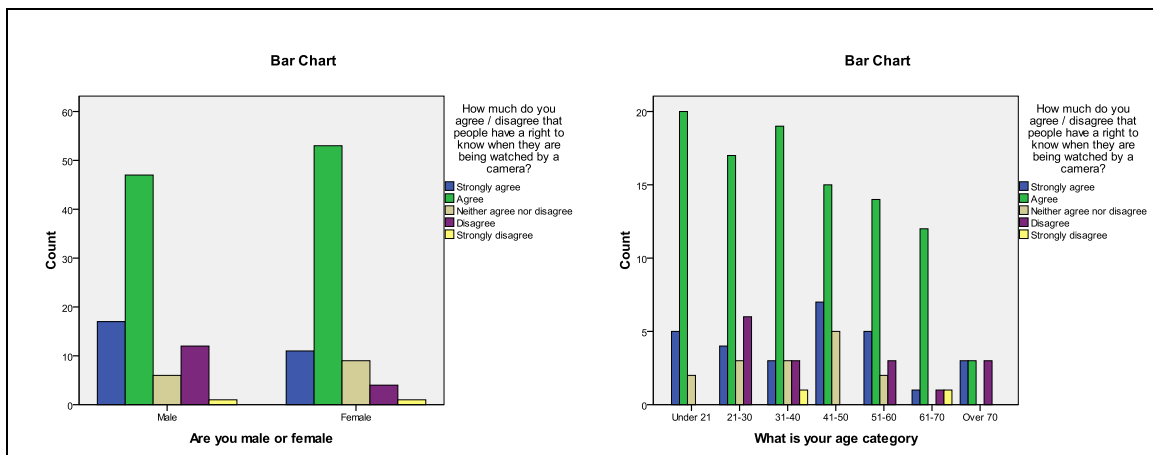


20. Perception and Attitudes – right to know, being watched

(Statement: People have a right to know they are being watched by a camera)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	17	47	6	12	1	83
	Percent	20.5%	56.6%	7.2%	14.5%	1.2%	100.0%
Female	Count	11	53	9	4	1	78
	Percent	14.1%	67.9%	11.5%	5.1%	1.3%	100.0%
Total	Count	28	100	15	16	2	161
	Percent	17.4%	62.1%	9.3%	9.9%	1.2%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	5	20	2	0	0	27
	Percent	18.5%	74.1%	7.4%	.0%	.0%	100.0%
21-30	Count	4	17	3	6	0	30
	Percent	13.3%	56.7%	10.0%	20.0%	.0%	100.0%
31-40	Count	3	19	3	3	1	29
	Percent	10.3%	65.5%	10.3%	10.3%	3.4%	100.0%
41-50	Count	7	15	5	0	0	27
	Percent	25.9%	55.6%	18.5%	.0%	.0%	100.0%
51-60	Count	5	14	2	3	0	24
	Percent	20.8%	58.3%	8.3%	12.5%	.0%	100.0%
61-70	Count	1	12	0	1	1	15
	Percent	6.7%	80.0%	.0%	6.7%	6.7%	100.0%
Over 70	Count	3	3	0	3	0	9
	Percent	33.3%	33.3%	.0%	33.3%	.0%	100.0%
Total	Count	28	100	15	16	2	161
	Percent	17.4%	62.1%	9.3%	9.9%	1.2%	100.0%

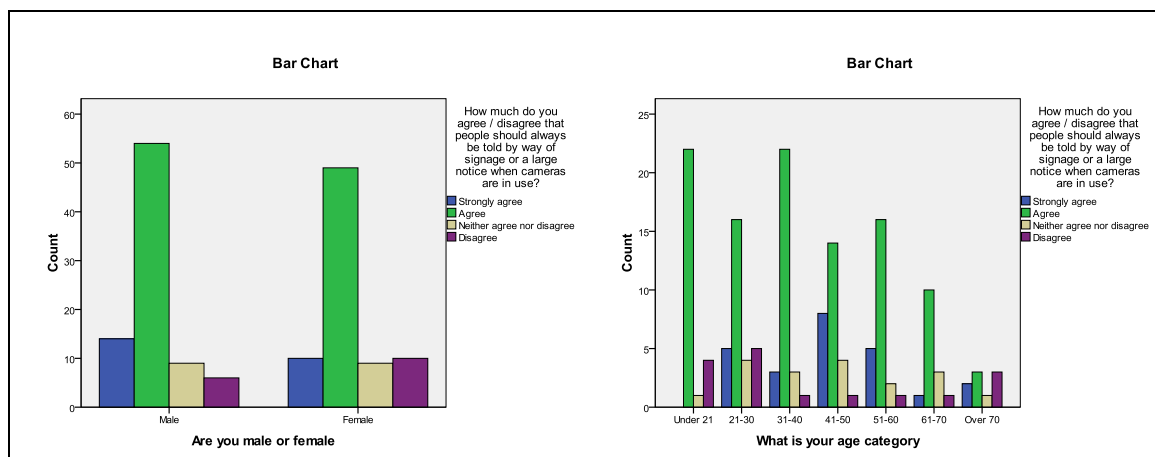


21. Perception and Attitudes – signage

(Statement: People should always be told by way of signage or a large notice when cameras are in use)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	14	54	9	6	83	14
	Percent	16.9%	65.1%	10.8%	7.2%	100.0%	16.9%
Female	Count	10	49	9	10	78	10
	Percent	12.8%	62.8%	11.5%	12.8%	100.0%	12.8%
Total	Count	24	103	18	16	161	24
	Percent	14.9%	64.0%	11.2%	9.9%	100.0%	14.9%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	22	1	4	27	0
	Percent	.0%	81.5%	3.7%	14.8%	100.0%	.0%
21-30	Count	5	16	4	5	30	5
	Percent	16.7%	53.3%	13.3%	16.7%	100.0%	16.7%
31-40	Count	3	22	3	1	29	3
	Percent	10.3%	75.9%	10.3%	3.4%	100.0%	10.3%
41-50	Count	8	14	4	1	27	8
	Percent	29.6%	51.9%	14.8%	3.7%	100.0%	29.6%
51-60	Count	5	16	2	1	24	5
	Percent	20.8%	66.7%	8.3%	4.2%	100.0%	20.8%
61-70	Count	1	10	3	1	15	1
	Percent	6.7%	66.7%	20.0%	6.7%	100.0%	6.7%
Over 70	Count	2	3	1	3	9	2
	Percent	22.2%	33.3%	11.1%	33.3%	100.0%	22.2%
Total	Count	24	103	18	16	161	24
	Percent	14.9%	64.0%	11.2%	9.9%	100.0%	14.9%

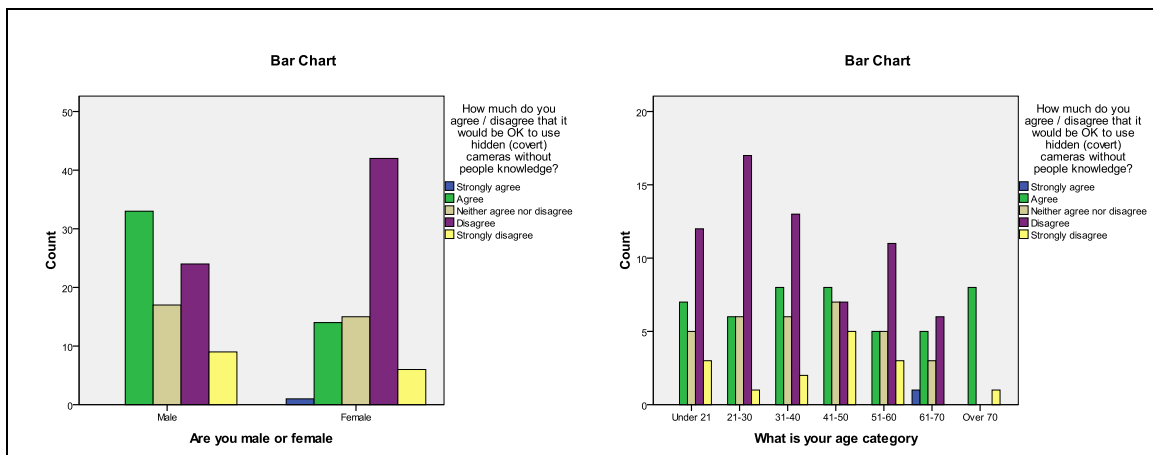


22. Perception and Attitudes – okay to use hidden (covert) cameras

(Statement: It would be okay to use hidden (covert) cameras without people's knowledge)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	0	33	17	24	9	83
	Percent	.0%	39.8%	20.5%	28.9%	10.8%	100.0%
Female	Count	1	14	15	42	6	78
	Percent	1.3%	17.9%	19.2%	53.8%	7.7%	100.0%
Total	Count	1	47	32	66	15	161
	Percent	.6%	29.2%	19.9%	41.0%	9.3%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	7	5	12	3	27
	Percent	.0%	25.9%	18.5%	44.4%	11.1%	100.0%
21-30	Count	0	6	6	17	1	30
	Percent	.0%	20.0%	20.0%	56.7%	3.3%	100.0%
31-40	Count	0	8	6	13	2	29
	Percent	.0%	27.6%	20.7%	44.8%	6.9%	100.0%
41-50	Count	0	8	7	7	5	27
	Percent	.0%	29.6%	25.9%	25.9%	18.5%	100.0%
51-60	Count	0	5	5	11	3	24
	Percent	.0%	20.8%	20.8%	45.8%	12.5%	100.0%
61-70	Count	1	5	3	6	0	15
	Percent	6.7%	33.3%	20.0%	40.0%	.0%	100.0%
Over 70	Count	0	8	0	0	1	9
	Percent	.0%	88.9%	.0%	.0%	11.1%	100.0%
Total	Count	1	47	32	66	15	161
	Percent	.6%	29.2%	19.9%	41.0%	9.3%	100.0%

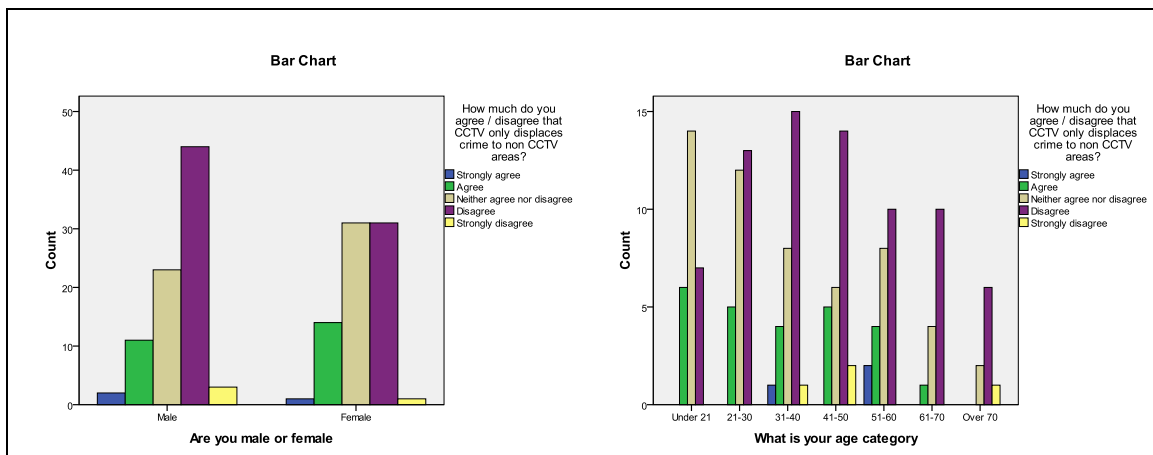


23. Perception and Attitudes – CCTV only displaces crime

(Statement: CCTV only displaces crime to non-CCTV areas)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	2	11	23	44	3	83
	Percent	2.4%	13.3%	27.7%	53.0%	3.6%	100.0%
Female	Count	1	14	31	31	1	78
	Percent	1.3%	17.9%	39.7%	39.7%	1.3%	100.0%
Total	Count	3	25	54	75	4	161
	Percent	1.9%	15.5%	33.5%	46.6%	2.5%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	0	6	14	7	0	27
	Percent	.0%	22.2%	51.9%	25.9%	.0%	100.0%
21-30	Count	0	5	12	13	0	30
	Percent	.0%	16.7%	40.0%	43.3%	.0%	100.0%
31-40	Count	1	4	8	15	1	29
	Percent	3.4%	13.8%	27.6%	51.7%	3.4%	100.0%
41-50	Count	0	5	6	14	2	27
	Percent	.0%	18.5%	22.2%	51.9%	7.4%	100.0%
51-60	Count	2	4	8	10	0	24
	Percent	8.3%	16.7%	33.3%	41.7%	.0%	100.0%
61-70	Count	0	1	4	10	0	15
	Percent	.0%	6.7%	26.7%	66.7%	.0%	100.0%
Over 70	Count	0	0	2	6	1	9
	Percent	.0%	.0%	22.2%	66.7%	11.1%	100.0%
Total	Count	3	25	54	75	4	161
	Percent	1.9%	15.5%	33.5%	46.6%	2.5%	100.0%



24. Perception and Attitudes – more cameras, the better

(Statement: The more of these cameras we have the better)

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Male	Count	19	50	10	3	1	83
	Percent	22.9%	60.2%	12.0%	3.6%	1.2%	100.0%
Female	Count	17	45	10	2	4	78
	Percent	21.8%	57.7%	12.8%	2.6%	5.1%	100.0%
Total	Count	36	95	20	5	5	161
	Percent	22.4%	59.0%	12.4%	3.1%	3.1%	100.0%

		Strongly agree	Agree	Neither	Disagree	Strongly disagree	Total
Under 21	Count	2	17	8	0	0	27
	Percent	7.4%	63.0%	29.6%	.0%	.0%	100.0%
21-30	Count	6	20	4	0	0	30
	Percent	20.0%	66.7%	13.3%	.0%	.0%	100.0%
31-40	Count	5	15	6	3	0	29
	Percent	17.2%	51.7%	20.7%	10.3%	.0%	100.0%
41-50	Count	5	14	2	2	4	27
	Percent	18.5%	51.9%	7.4%	7.4%	14.8%	100.0%
51-60	Count	8	15	0	0	1	24
	Percent	33.3%	62.5%	.0%	.0%	4.2%	100.0%
61-70	Count	4	11	0	0	0	15
	Percent	26.7%	73.3%	.0%	.0%	.0%	100.0%
Over 70	Count	6	3	0	0	0	9
	Percent	66.7%	33.3%	.0%	.0%	.0%	100.0%
Total	Count	36	95	20	5	5	161
	Percent	22.4%	59.0%	12.4%	3.1%	3.1%	100.0%

