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Understanding the attrition process in volume crime investigations

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Executive summary

This research addresses three important questions in the investigation of volume crime – ‘what solves volume crime?’; ‘why is the attrition¹ of volume crime cases so high?’; and ‘why do volume crime detection rates in similar Basic Command Units (BCUs) vary?’ The research focused on eight police BCUs. In these areas a total of just over 3,000 volume crime cases were tracked retrospectively from the crime report to final disposal. The policies and processes applied in dealing with volume crime were assessed, and interviews carried out with police and civilian staff at all levels.

Two BCUs were selected from each of four high volume crime ‘families’ of BCUs – one with a high, and one with a low, detection rate in each pair. Half the cases randomly sampled in each BCU were detected and half undetected. In all, the sample of cases included domestic burglary cases (in three pairs of BCUs), theft of motor vehicles (in two pairs of BCUs), theft from motor vehicles (in two pairs of BCUs) and non-domestic burglary in a single pair of BCUs. In addition to the case file analysis and interviews, a range of other data was collected from each BCU. These data related to the BCU’s priorities, processes, management arrangements, use of forensic evidence and so on. These were drawn on to try to understand variations in rates of detection.

Key findings

The investigation of volume crime – for the purpose of this research defined as domestic and non-domestic burglary and theft of and from vehicles – has long proved problematic for the police, as few cases offer much in the way of leads to follow up. This reality, coupled with the frequency with which such offences are committed, is the root cause of attrition. However, variations in detection rates across BCUs would suggest that there are other factors affecting the likelihood of a detection. This research has identified a number of factors that go some way in explaining variations in detection rates.

1. Attrition describes the loss of cases through the criminal justice system. Depending on the extent of interest, the starting point and end points may differ. In this research the starting point was recorded crime and the end point was ‘sanction detections’: detections that are associated with the imposition of a sanction on an offender (including those ‘taken into consideration’ by the courts in sentencing).

Investigative policies and practices in the eight BCUs

The priority attached to crime detection, the approach to investigations and the management of volume crime detection processes, differed across the BCUs. These variations appeared to be related to variations in detection rate. Higher volume crime detection rates were generally in BCUs where: managers attached importance to investigations; a performance management regime highlighted detections; there was officer 'ownership' of cases through the investigative process; there was active front-line officer supervision, and police officer and SOCO attendance at – and active investigation of – a larger proportion of cases; and, a greater emphasis was placed on obtaining TICs.

Both initial response officer and SOCO attendance rates were found to vary markedly, particularly for vehicle crimes. However, low attendance rates by initial response officers were not necessarily associated with a correspondingly low attendance rates for SOCOs.

The investigative process and attrition

Not all BCUs will apply the same resource and effort to investigating volume crime and cases are often screened² out at different stages of the investigation. Three distinct approaches to screening seem to emerge: that of screening out cases which are expected to be undetectable before responding; that of screening after an initial response; and policies of not screening at all, except for case finalisation. The first approach, of course, represents the position of a police unit most concerned with minimising 'wasteful' investigations and the latter of a police unit more heavily focused on achieving investigative effectiveness.

Attrition is most severe in identifying a suspect – in 82 per cent of cases no suspect was identified. Once a suspect has been named or identified, further attrition occurs, but at a lower rate. However, because of the amount of time that has already been expended in naming or identifying a suspect, every reduction thereafter could be seen to represent a considerable 'lost opportunity'.

Linking suspects to offences

A distinction was made in this research between information that first identifies a suspect in a case (or provide the 'first links') and information that enables the crime to be detected.

The large majority of 'first links' between a suspect and a crime appear to be associated with the initial enquiries. They comprise those offences where suspects are caught directly as

2. Screening out means that a decision has been made that a particular case will not receive further investigative effort.

a result of the initial police investigation (which accounted for just over a half of all direct detections), and those where the offender left some trace of his/her presence at the scene (which account for just under a quarter).

Looking in more detail at direct³ detections derived from initial police investigations, it is evident that while initial responses lead to suspects being 'caught red-handed' in 22 per cent of cases, these cases are dwarfed by those where victims and witnesses are present, and able to provide helpful leads (just under four-fifths of cases).

There is no consistent evidence to support the assertion that BCUs which achieve a higher proportion of forensic matches also have a high detection rate: indicating that a strong forensic performance is no guarantee of higher investigative performance per se. However, the research found large variations in scene attendance rates by Scenes of Crime Officers both by crime type and BCU. Both the DNA match rate and the rate of fingerprint identifications were closely related to attendance rates for non-domestic burglary, for theft of motor vehicles and for theft from motor vehicles. The rate of identifications for domestic burglary was not positively related to scene attendance rates for either type of forensic evidence: the likely explanation being that, at the generally very high rates of SOCO scene attendance for domestic burglary, limited additional identifications are generated by higher rates of scene attendance.

Detecting volume crime

The principal types of information enabling an offence to be directly detected were 'suspect caught close/at scene' (34%) and physical evidence (27%).

Factors relating to time were amongst the case attributes found to be associated with increased chances of detection: for instance cases known to have been committed within short time windows, and reported quickly, were more likely to be detected – as were those incidents in progress where there was a speedy response. Effective intervention by the police is however dependent on speedy action from victims and witnesses.

The number of leads in a case proved to be a reasonable predictor of the likelihood of subsequent detection of a crime. The effect was more pronounced when considering, together, a variety of sources from which a suspect's name was obtained. The best predictor proved to be multiple leads, reflecting the impact of corroborative evidence from different sources increasing the likelihood of a detection.

3. These comprise sanction detections excluding TICs.

Whether an offender was caught at the scene (or not) proved to be the factor that had the greatest impact on likelihood of detection. However, cases with this characteristic are rare. Forensic evidence increased the odds of a detection most for vehicle crime. For burglary dwelling cases, sources of information giving the name of a suspect had a greater impact than forensics on the likelihood of a detection.

Identifying solvable cases

Seventeen per cent of the cases in the sample had what were defined as 'strong initial leads' (that is, a suspect was detained at the scene; a suspect name was given to control room staff; an offender was reported entering/leaving the building or vehicle; or a vehicle or suspect description provided). However, not all cases with strong initial leads received an initial police attendance (5% of all cases with strong leads were not attended); theft of, and from, motor vehicles accounted for a high proportion of this group.

Strong initial leads were found not to guarantee a detection. Many suspects identified by witnesses are either not implicated, or their involvement cannot be proved. Suspects seen at a crime can have disappeared in minutes. In other words, the presence of strong initial leads does not offer certainty of a detection. Only around one-fifth of crimes with strong initial leads actually ended up being detected.

Conversely, detected cases do not entirely comprise those where potential solvability can be established in advance. Those cases with no strong leads or forensic clues that nevertheless received an initial response ended up accounting for 20 per cent of all direct detections.

Two key themes emerge around an examination of 'missed opportunities' in detections: that is, cases that remained undetected, despite having a high probability of detection. The first concerned the failure to identify a suspect through forensic linking, either due to their absence from the relevant database or claimed legitimate access. The second concerned the quality of evidence available.

Indirect detections

Looking at indirect detections, the pattern is generally for BCUs with higher rates of overall detection also to have higher ratios of TICs to direct detections. This suggests that greater use of TICs contributes to their higher overall sanction detection rates. Generally those BCUs with higher detection rates overall displayed both a larger proportion of cases directly detected, and higher TIC ratios from those detected directly. In short, a strong orientation to

detection often includes both attention to direct detection and efforts to achieve TICs from cases directly detected.

Where CID officers were involved in interviewing suspects the proportion of cases detected by TIC increased substantially, although it is unclear whether this is due to the nature of cases allocated to them or as a result of their investigative experience and specialist skills.

Explaining differences in BCU direct detection rates

Overall, the study highlighted a number of key differences between the comparison BCUs that may explain their different volume crime detection rates. These were in their overall focus on detections as opposed to other police priorities and, linked to this, differences in their attendance rates, and, to how effective they were in targeting of resources on 'solvable' crimes. The higher detection rate BCUs combined strong performance regimes with a focus on detections. The lower detection rate BCUs either had weaker performance regimes in place or focused on other policing priorities, sometimes alongside detections.

The other broadly consistent finding relates to attendance both by response officers and SOCOs.

Highly selective attendance regimes could influence the ability to respond well to offences with initial leads. In one BCU that screened out the vast majority of theft of vehicle cases for initial police response, more than half of cases with strong initial leads failed to be attended. Elsewhere there was evidence of more effective screening: one high detection rate BCU attended scenes at a relatively low rate but still attended a high proportion of its 'solvable' cases.

SOCO attendance rates tended to be higher in the high detection BCUs: in only one of the comparisons made did a low detection rate BCU attend a higher proportion of scenes than its corresponding high detection rate BCU.

Overall, resources also appeared to be important. High detection rate BCUs in two of the three comparison groups also had lower numbers of crimes per officer. However, how resources were deployed also appeared to be influential. For comparison group D volume crimes per officer were similar for both the high and low detection rate BCUs – here the importance of a detections focus, and levels of investigative activity were seemingly more influential in determining the difference in detection rates.

There were a number of factors identified in the research as being less important in determining variations in BCU detection rates, or where their impact was unclear. There was no consistent evidence to suggest that the higher detection rate BCUs gain advantage by having offences reported more rapidly to the police or by the police being more timely in their response to time-sensitive calls.

Furthermore, it remains unclear what impact variations in offender/victim relationship, both between crime types, and across BCUs, have on detection rates. The pattern was most uneven for domestic burglary; in nearly one in five detected domestic burglary cases the offender was known to the victim (ranging from 6% to 31% across the different BCUs). For detected theft from motor vehicle cases the victim knew the offender in less than three per cent of cases.

The 'procedural' and 'discretionary' approaches to the investigative process.

Two broad approaches to detection have emerged from the research. One is largely 'procedural' and the other largely 'discretionary': the procedural approach relies on specified, set, actions being performed by officers and specialist units. The discretionary approach relies on officers being responsible for determining what investigation is appropriate in the light of the circumstances. It was possible to discern some of the conditions in which each approach is likely to maximise rates of detection.

The discretionary model depends on officers who have the necessary capacities. It operates most comfortably in stable and trusting policing environments, with relatively strong benefits and few risks. Elsewhere, with inexperienced officers, operating in changing environments with less trust between the police or within the communities served, a strong procedural model may deliver more benefits and fewer risks.

Neither the discretionary style nor the procedural style can guarantee higher rates of detection. Success with the discretionary approach depends on the availability of experienced and well-motivated officers with good supervision; success with the procedural approach depends on strong and effective procedures, but also backed up by effective supervision.

The precise relationship between procedural/discretionary approaches and the community policed is hard to unravel. The nature of the relationship between the police and the community may well influence the adoption of a particular style of investigative practice, or alternatively, the adoption of such an approach may actually foster the relationship with the community.

Where some of the conditions for the discretionary approach are absent, it seems that a well managed and implemented procedural approach will be more fruitful.

Implications

Determining what factors, out of a wide range of different influences (many of which interact with each other), determine overall detection rates has proved challenging. There is clearly no straightforward set of recommendations that will ensure direct detection rates for volume crime will improve, but some key lessons can be drawn from this research.

‘Value’ investigative performance

While the high performing BCUs differed in a range of respects from their less well performing counterparts, it was apparent that they consistently ‘worked’ towards their achievements. In general terms, they placed a high premium on detection, and saw this as a key means of delivering crime reduction, rather than as a lesser goal. They subjected a higher proportion of cases to active investigation, and recorded higher levels of SOCO attendance at scenes. They actively applied performance management techniques to volume crime investigation and gave greater weight to supervision. They sought to develop IT systems that would assist detection. Indeed, the argument that an area’s detection performance is largely fixed in time – by the nature of the community policed and the leads provided by the public – was clearly shown to be invalid by the success of one of the low performing BCUs in this research in effectively matching the achievements of its former high performing ‘pair’ during the course of the study.

Review resources and their deployment

While there are many problems associated with accurately comparing the resources invested in volume crime investigations, this study (and a parallel study of volume crime detection rates across all forces and BCUs⁴), shows that resource levels and their deployment appear to be an important part of the mix of factors that influence direct detection rates. The policies and practices used to screen for initial response seemed largely to serve as a mechanism for targeting scarce resources. Where screening is taking place it may not always be carried out in line with the principles behind the classic ‘screening model’ – that is, to divert resources from apparently ‘unsolvable’ cases to channel them towards the investigation of a higher proportion of potentially solvable cases (taking into account the seriousness of the case). Rather, it may simply be a means of controlling the overall demand on resources.

4. Tilley, N and Burrows, J (2005) An overview of attrition patterns.

The study has not involved experiments to see what happens when levels of resource are altered. Such experiments would be able to furnish more evidence about how access to different levels of resources could change detection rates.

Review case screening mechanisms – and recognise solvability cannot always be determined without attendance at the scene

This study has shown that the pattern of screening is not consistently ‘filtering in’ cases with strong leads (i.e. the most promising cases are not being targeted), and that cases that appear not to offer strong leads can still yield detections. Volume crimes cases that are detected comprise both those with strong prior signs of solvability, but also those derived from more ‘speculative’ enquiries. In short, a significant proportion of direct detections only emerge from attendance, and then enquiries, at a crime scene. This suggests that the way screening is being undertaken needs to be examined, and in particular that there is a strong case for forces to reassess their screening/attendance policies for those offences where first officer attendance is selective.

The process of screening for initial attendance is an important factor influencing the likelihood of detecting volume crimes. The current study cannot give guidance about the value, or otherwise, of different approaches to case screening or differential attendance patterns, nor the benefits that might accrue in detections or victim reassurance from changing existing patterns. Such evidence would need to be derived from some form of controlled trial. It does however shed important light on an issue critical to the debate about case screening: the ability to separate ‘solvable’ cases from the ‘unsolvable’.

The study provides clear evidence that the presence of solvability factors does not offer any form of certainty of outcome and second that a significant proportion of cases where there were few signs of leads, but were, nevertheless, attended were solved⁵. This suggests either that the BCUs under review were consistently deficient in recognising solvability, or that this is not as easy as has hitherto been suggested.

Enhance investigative skills

Reflecting on the drive to enhance investigative skills under the PIP (‘Professionalising the Investigative Process’) programme, the report recommends that three key aspects of the investigative process should not be overlooked: the training and development of control

5. An allied point is that it is very rare for cases that are not attended by the police to be detected: in short that ‘telephone investigations’ are more recording exercises than true investigations.

room staff, who should properly be seen as linchpins in the investigative process; the enhancement of interview techniques aimed at securing TICs; and the development of effective supervision which is critical in ensuring that front-line officers diligently and creatively pursue all the leads available to them.

Invest in forensic examination

The research found that forensic techniques are not only generating an increasing and sizeable proportion of 'first links' between a suspect and volume crime offences, but such techniques are also providing (to a similar degree) the 'principal information' needed to make a case against a suspect. It can also be concluded that forensic techniques are not just replacing 'first links' that, in their absence, would be obtained by standard initial enquiries, but are making a marked impact on otherwise difficult, or impossible to detect, cases.

There are however signs that further improvement might still be made in this area. The case study analysis pointed to very large differences in the rate of scene attendance by SOCOs (not only between crimes and BCUs, but within BCUs for different types of volume crime). The success at recovering contact trace material also varied widely: both findings suggest that if police areas with low attendance and low recovery rates could match the success of their counterparts at the other end of the scale, additional detections would materialise. In particular the research pointed to the considerable scope to attend more vehicle crime 'scenes' and that this would be likely to yield more identifications.

Promote 'indirect' detections

TICs are critical to improving volume crime sanction detection rates: they currently account for one third of all volume crime detections nationally. This research has highlighted the rationales used for TICs, and for their neglect in some areas. It has also shown that although they are unlikely to be very time-consuming once a primary detection has been achieved, they are not easily obtained – and require skilled officer efforts.

There has long been, and there remains, a good deal of ambivalence (displayed both within and across the BCUs included in this study) on the importance of TICs. Rates in differing BCUs vary widely. Opinions of officers differ dramatically. There are perceived to be mixed messages about their relevance (with the contention that multiple charges and TICs are 'not in the public interest' often given most prominence). Added to this there can be little doubt amongst offenders that, once charged, it is extremely unlikely that they will be subject to further enquiries in relation to previous offending activity.

The report argues that it is vital that this situation is addressed and that agreement is reached on the priority that the Home Office and police service attach to indirect detections. In reaching such a decision it also urges that there is a need to establish a firm evidential baseline on key issues, such as the impact that taking TICs has on the sentence received by offenders, or even hard data about the relative costs of obtaining TICs against securing direct detections. This has long been absent.

Promote experimentation

Finally, the report suggest that a better understanding of the options available to improve detection rates might accrue from demonstration projects attempting to implement the different management approaches available in a systematic and rigorous fashion. It is argued that this could not only involve testing the 'procedural' and the 'discretionary' approaches, but a 'mixed model' where discretion and procedures are married in ways that might maximise the benefits of the different approaches, and reduce the risks of each.

A key area of police performance is the successful investigation and detection of crime. This is reflected in the report 'Narrowing the justice gap' (2002), in which the Government announced its intention to set a target to ensure 1.2 million offences are brought to justice in 2005-6 (Home Office 2002), with these words:

'Bringing offenders to justice is the best way of demonstrating to criminals that their crimes will not go unpunished, and to victims that the criminal justice system is acting effectively on their behalf. But there is a justice gap. Only a fifth of crimes recorded by the police result in their perpetrator being brought to justice. We can and must do better.'

This new target has thrown the spotlight on the extent of attrition – the shortfall between the number of offences committed and the number of offenders convicted – and led to the commissioning of a programme of work, of which the present study forms a part.

Home Office figures show that of the 5.9 million crimes recorded in 2003/4 only 1.4 million (23.5%) were detected by the police (Dodd, Nicholas, Povey and Walker; 2004). Large variations in investigative performance currently exist both across and within forces. In addition, the rate of attrition varies greatly across crime types with volume crime appearing to be a particular problem. In 2003/4 only 13 per cent of burglaries and eight per cent of vehicle crimes were detected in England and Wales.

Aim and objectives of the research

The overall aim of the research was to examine general levels of attrition (up to the point of charge) in volume crime cases. The specific objectives were:

- to identify and examine the critical stages in volume crime investigations and contrast the process in similar high detection and low detection Basic Command Units (BCUs);
- to identify where and why offences are 'lost' in this process; and
- to highlight the principal barriers to quality volume crime investigations within a range of BCU settings.

Volume crime, for the purpose of this research, was defined as four offences: burglaries of dwelling houses, burglaries in buildings 'other than a dwelling', thefts from motor vehicles and thefts of motor vehicles.

Background

Two Home Office literature reviews, one of the literature relating to volume crime investigations (Jansson, 2005) and another of the use of forensic science in such investigations (Bradbury and Feist, 2005), complement the research reported here. Reference is made to findings and issues raised by these reviews at many points in this report. In view of this, the findings are not summarised in any detail here. Rather brief reference to some 'headline' themes, and to some of the initiatives currently under way to improve volume crime investigations in England and Wales help put the present work in context.

Jansson's review, like the current research, focuses primarily on reactive investigations, which it defines as those initiated by police in response to known crimes. Its principal message is conveyed in the following extract:

'The initial contact and police response is the first stage in the investigative process and provides the police with the first opportunity to collect information about the crime and to respond to the crime promptly. Research has indicated that this stage in the investigative process is highly context-specific and heavily dependent upon assistance from the public. UK research has shown that arresting offenders near or at the scene makes a relatively large contribution to total detections for volume crime offences. The main factor determining whether an offender is apprehended at the scene is the length of time between the crime being committed and reported.'

(Jansson, 2005)

Additionally Jansson's review of the research attaches significant importance to scene assessment and the initial actions taken by the police. She points out that while the range of actions the police can take at a crime scene can be limited, a large proportion of volume crimes are detected through information obtained from victims and witnesses. But equally she emphasises that very little research has looked at the relative contributions of initial actions or the decisions investigators make at this stage. The large-scale 'cohort review' undertaken during the course of the present study (outlined in more details in 'Methods', below) has sought to redress this balance and offers the facility to plot the actions taken by the police and their impact.

The interdependency between the police and the public in solving crime is routinely documented in the research literature, and the present work seeks to probe the various dimensions closely. The relationships can come in various forms and may relate to general issues, such as the readiness of different communities to offer police intelligence about those involved in crime, or to specific issues such as 'timeliness' (for example the police are clearly presented with very real chances to solve crimes if they respond quickly, but there is little point served in rushing to crime scenes if the offence is discovered long after it was committed, or if – once discovered – the victim delays making a report). However, the research faces the challenge of many retrospective assessments – that of separating cause and effect. For example, 'was the presence of X leads in any particular case due simply to the information keenly volunteered by victim and/or witness, or were the leads largely attributable to the efforts and persistence of police officers in locating them, and persuading them to provide observations?'

One of the reasons why it is so important to understand the interplay between police and public is, of course, to be able to delineate what lies within the ambit of the duties and powers of the police service, and where changes in management or training might be improved. Both issues have recently been under the spotlight. On the management front, there have been two influential guides to volume crime management produced recently: one by the Association of Chief Police Officers (ACPO Crime Committee, 2002), and another by Centrex (Panting, 2003). Both have drawn heavily on a study commissioned by ACPO in 2002 that sought to identify the causes of attrition across nine force areas (Hewitt, 2002). On the training and development front, a major programme to 'Professionalise the Investigative Process' (PIP) is now starting to be rolled out. PIP is a very substantial initiative by the ACPO in conjunction with the Home Office, and the Police Skills and Standards Organisation (PSSO). It requires the development, delivery and implementation – starting in 2005/2006 and across all police forces in England and Wales – of a process for the professional accreditation of investigators.

Jansson's review implies that the explanation for variations in detection rates is likely to be found to lie in at least four areas: in the nature of the cases presented for investigation in different areas, in the regimes that different police areas set up to handle such investigations, in the scale and composition of the resources available to them to respond and in the activities they carry out when investigating such crimes. These four themes are carried forward into this study.

Another conceptual approach that is explained in some detail in the review and also used here is the 'triage hypothesis', developed by Eck (1983) to categorise the 'solvability' of

crimes. Eck divided cases into three groups:

- Cases that are “self-solvers” – that is, there are such clear leads and information that very little detective work is required (as in cases where a suspect is arrested ‘in the act’).
- Cases that can be solved as there are leads and information, but there is a need to carry out some investigative work in order to do so – it is these cases, Eck argued, where police work and actions will have the most impact.
- Cases that cannot be solved with a reasonable amount of detective work and effort, or indeed will never be solved.

This categorisation has the great merit of being both simple and highly plausible, and – for these reasons alone – it receives consideration in the present report.

Bradbury and Feist’s (2005) review of the literature relating to the use of forensic science in volume crime investigations covers a more restricted subject area, and again it would not be appropriate to seek to represent its full findings here. But it is relevant to note that the review plots the development of forensic material from a point where it was largely used in a corroborative function (that is, supporting – or challenging – the development of police investigations led by other information sources) to a position where cold searching of contact trace material against large computer databases now increasingly means that such information can itself generate detections. Developments in forensic techniques mean that cases that would at an earlier time reasonably have been deemed undetectable have become detectable (c.f. Eck 1983). The line between the cases that can and cannot be detected at reasonable effort is not therefore fixed.

Approach to the study

The research was carried out in eight BCUs and these were selected as matched pairs – each pair comprising one with a relatively high, and one with a relatively low direct sanction detection⁶ rate for volume crime. It was envisaged that this broad approach would provide a potentially valuable platform to determine ‘what works’. Within each BCU, the research team first drew up detailed process maps of how investigations are typically carried out, and conducted interviews with key people involved in the investigative process to further develop an understanding of priorities, policies and practice on the ground. The

6. Direct detections refer to offences detected directly to an offender through case investigation. Indirect detections refer to other offences that directly detected offenders admit so they may be ‘taken into consideration’ (TIC) at court alongside the directly detected offence.

team then put in place arrangements to track – from cradle to grave – a full record of random samples of detected and undetected cases: an exercise labelled in this report as the ‘cohort review’. The details of the approach are presented below.

Sample selection

The sample of BCUs focused on in this research emerged from a separate but linked piece of work (see Tilley and Burrows, 2005). That work comprised an overview of detection rates for volume crime for all territorial police forces and BCUs in England and Wales in 2002/3 for which data were available. Data were not provided for two forces and their BCUs. Airport BCUs were also omitted from the analysis. This left 266 BCUs whose detection patterns could be examined.

The Home Office classified BCUs into 13 families defined in terms of greatest similarity across 18 socio-demographic and geographic attributes (Harper et al., 2001, Sheldon et al., 2002, Hall et al., 2003a, 2003b). On the basis that the lessons learnt would have the greatest impact in high crime BCUs, cases for tracking in the research reported here were chosen from BCUs belonging to the four highest crime families, excluding a small family of six rather distinctive BCUs that cover city centres. For each high crime BCU family, a relatively high and relatively low direct ‘sanction detection’ rate BCU was selected⁷ from which individual cases for tracking would be chosen. In order to ensure a sufficient number of detected cases for meaningful analysis, half the cases selected in each BCU were detected and half were undetected. This constrained the choice of BCUs, since for some potential candidates there were, over a twelve-month period, insufficient detected cases in the four volume crime types to be focused on in the research. Moreover, it was agreed that the BCUs had to be broadly representative of the regions of England and Wales and of stages reached in implementing the National Intelligence Model (NIM)⁸. In addition, once initial selections were made, it also had to be established that the BCUs chosen were willing and able to co-operate with the research team – they would have to be prepared to extract the relevant material for coding or would have to give researchers access to the relevant paper or computer files.

These constraints on choice, agreed with the Home Office, left few options over the BCUs that were eventually included in the study. Two BCUs were selected from Family 2, two from Family 4, two from Family 10, and two from Family 13. These four families included, in all, 88 of the 266 BCUs included in the overview.

7. Indirect detections were excluded as a criterion for selecting high and low detection BCUs in the interests of identifying contrasts in direct detection practice and efficacy, since it was thought likely that the factors at work in creating variations in numbers of TICs would be rather different from those associated with direct detection. This, indeed, did turn out to be the case.

8. By the time the fieldwork was undertaken the distinctions between stages in NIM implementation were no longer apparent.

Participating BCUs/forces

Two different crime types were selected for case tracking within the two BCUs in each family:

- For Family 2 BCUs, domestic and non-domestic burglaries.
- For Family 4 BCUs, domestic burglary and theft from motor vehicles.
- For Family 10 BCUs, domestic burglary and theft of motor vehicles.
- For Family 13 BCUs, theft of motor vehicles and theft from motor vehicles.

Table 1.1 presents the details of the eight BCUs participating in this research: here the four pairs of BCUs are labelled alphabetically (from pair 'A' to pair 'D'), and within each pair the high detection rate BCU is marked with an 'H' suffix (thus AH, BH etc) and the low detection rate BCU with an 'L' (thus AL, BL, etc.). With regard to pair 'A', however – as discussed later – by the time of the cohort review the detection rate differences had evaporated: so AH and AL describe respectively the high and low detection BCUs only at the time the BCUs were selected.

It will be seen that domestic burglary (BDW) cases have been selected from three families (six BCUs in all), theft of motor vehicles (TOMV) from two families (four BCUs in all), theft from motor vehicles (TFMV) from two families (four BCUs in all) and non-domestic burglary (BOTD) from one family (two BCUs in all). This does not reflect the relative numbers of incidents of the four types examined in this research.

Table 1.1: BCUs selected for the research study

Family	BCUs ⁹ and sanction detection rates (excluding TICs) in 2002/3 for designated offences in sample BCUs	
F2	AH	AL
	BOTD - 12.8%	BOTD - 7.4%
	BDW - 7.3%	BDW - 4.9%
F4	BH	BL
	BDW - 11.7%	BDW - 4.9%
	TFMV - 5.0%	TFMV - 2.8%
F10	CH	CL
	BDW - 11.8%	BDW - 4.9%
	TOMV - 12.2%	TOMV - 8.5%
F13	DH	DL
	TOMV - 16.9%	TOMV - 8.9%
	TFMV - 5.8%	TFMV - 3.2%

9. For the remainder of the report the high performing BCUs will be referenced with the letter 'H' and low performing with the letter 'L'.

The findings presented cannot be generalised to all BCUs, since the attributes that lead some BCU families (generally) to have relatively lower crime rates may also be relevant to levels of difficulty in, and most appropriate methods for, detection. For example Family 12 comprises rural, relatively low crime areas with high rates of detection for volume crime. Detections in Family 12 areas may not be achieved in quite the same way as those achieved in the urban high crime areas found in the four BCU families from which BCUs have been selected for this study.

Within each BCU, a 'cohort review' of cases was carried out: for each crime type, detected and undetected cases were selected randomly, picking every *n*th case from detected and undetected lists to achieve the required sample sizes, a case comprising a single crimed offence based on the finally agreed offence code. The selection was made regardless of the method of detection (e.g. by charge or being 'taken into consideration'), and was aimed at securing a full cross-section of the different methods used. Table 1.2 shows the achieved sample sizes.

Table 1.2: Sample sizes in cohort review

	Domestic burglary	Non-Domestic burglary	Theft from motor vehicles	Theft of motor vehicles	Total
AH	188	188	0	0	376
AL	188	188	0	0	376
BH	188	0	190	0	378
BL	188	0	189	0	377
CH	188	0	0	188	376
CL	188	0	0	188	376
DH	0	0	188	199	387
DL	0	0	188	188	376
Total	1,128	376	755	763	3,022

The BCUs were selected on the basis of detection rates for 2002/3, as these were derived from the most recent national data available to the research team. The cases tracked, however, were chosen from 2003/4 in order to maximise the likelihood of selecting recent cases while limiting the likelihood that cases tracked would still be subject to ongoing investigations.

The sampling methods used in the research mean that the data as a whole cannot simply be aggregated and treated as representative of the population of all detected and undetected incidents in the BCUs selected for the study, even for the volume crime types under review.

Where appropriate for the analysis, the data have been weighted to take account of the over-sampling of detected cases in each BCU. This weighting relates to the levels of detection in the year from which the samples of cases were drawn and not the year's data used as a basis for selecting BCUs. Notes to tables indicate whether weighted data have been used (see Appendix 1).

Case coding

An extensive coding frame for tracking each case was constructed, building on pilot work in one BCU conducted within the Research, Development and Statistics Directorate in the Home Office. The coding frame made provision for detailed pre-coded data on:

- the incident report (what was reported by whom and to whom at what time and with what resource allocation);
- the crime report (offence and victim attributes);
- the investigative work undertaken (who was involved and what was done);
- leads generated from investigative work (from the offence, victim, witnesses, physical evidence recovered etc);
- results of investigative efforts;
- means by which suspects were identified;
- interviewing of suspects;
- the form of final disposal;
- offences taken into consideration (TICs) from up to four suspects and by crime type;
- details of any secondary investigation and grounds for engaging in it;
- referral to the Crown Prosecution Service (CPS);
- CPS decisions about proceeding with the case; and
- results of cases that went to court.

A small number of fields provided for free text entries where members of the research team summarised cases, indicated how they were solved, and noted apparently neglected leads.

The detailed case-by-case data collection and coding was problematic in three different ways. First, assembling the relevant case materials was often difficult. 'Files' – and these included incident logs, crime records, summaries of investigations, and custody files – had to be retrieved from storage and/or from computers. It was sometimes difficult, in practice, to obtain access to the files, even where in principle forces were happy to co-operate with the research. It was often difficult to match cases up, given the use of different reference

numbers. Unique reference numbers (URNs) are used at different stages in a case and by different agencies, making cross-referencing large numbers of cases very tricky and time-consuming. Second, record keeping on cases can be patchy in its extent and quality both within and across BCUs. Data were often missing. Moreover, where data were missing on activities it was not always possible to determine whether the activity had not taken place or whether it had, but had yielded nothing deemed of any significance that was worth recording. Third, coding cases for research purposes was highly challenging for the research team. The categories used across BCUs for research purposes did not always match those used within individual police services for operational purposes. Members of the research team had, thus, to interpret the material at their disposal to complete the coding forms for each case. This creates potential inter-rater reliability problems that were in this case addressed by frequent correspondence within the research team, by the use of some experienced members acting as reference points in the case of queries from less experienced staff, and by senior staff checks on form completions by other researchers.

The issue of secondary investigation raised particular problems. The term is widely used in some forces, where formal systems exist to screen cases and decide whether to allocate them for further investigation. Other forces use different definitions and adopt different procedures. Matching practices consistently in these circumstances is problematic (see Chapter 3).

BCU profiling and process maps

In order better to understand the investigative policies and practices in the eight BCUs from which cases for tracking were selected, a range of data was collected relating to each of them. Interviews were conducted with a cross-section of those involved in the investigative process. These included call-takers, incident management unit staff, response officers, scenes of crime officers (SOCOs or crime scene examiners), beat officers, beat sergeants, Criminal Investigation Department (CID) officers and their managers, custody suite staff, intelligence unit staff, and BCU commanders. In total 128 interviews were undertaken.

Documentation relating to policies and practices was also assembled, though the paper processes did not always match those described by participants, and participants and their supervisors did not always share quite the same view of what was and what was not supposed to be taking place. Process maps attempting to capture the ways in which cases were dealt with in each BCU were created on the basis of the written and verbal information collected. These covered, for instance, ways of dealing with crime reports, deployments of officers to attend scenes, initial investigative policies and practices, occasions for and forms

of secondary investigation, suspect and arrestee handling, dealings with the CPS and the points at which decisions to file or continue with investigation could be made.

One difficulty with the process mapping was that BCUs change the ways in which they deal with cases in the light of their own efforts to make improvements, the external guidance they receive, transfers of staff, or emerging priorities that are being emphasised by third parties. Taking cases retrospectively over a year makes matching policies, practices and investigative outcomes difficult. It was not possible often to reconstruct changing patterns of work in individual BCUs and to line these up with the cases being tracked.

In addition to mapping the investigative processes in each BCU, a range of other BCU-level data were collected. These included:

- attributes of the BCU (including geographical size, population, officer and support staff strength, organisation, working practices, performance monitoring arrangements, call handling arrangements, initial crime response policies and practices, suspect handling policies, TIC policies, intelligence systems, file preparation arrangements, relationship with CPS, and BCU 'style');
- numbers of offenders arrested in relation to offences (offenders per offence and offences per offender); and
- SOCO performance data relating to the four volume crime types of interest.

Analysis

The outcomes of cases fall into three main categories. 'Direct detections'; 'Indirect detections' and finally, cases that may remain 'Undetected'.

Offences detected indirectly through TIC (often referred to simply as 'TICs') are to be distinguished from 'prison write-offs' (see Burrows, 1986). The latter comprise crimes that offenders confess to whilst in prison, but for which they are not formally charged. Instead such offences are 'written off'. The police are no longer able to detect crimes through prison write-offs. For the purpose of this research report TICs are generally treated separately from direct detections. This is not to diminish their possible importance. Rather it is because they follow from direct detections that are achieved in quite different ways from TICs¹⁰.

10. The proportion of TICs obtained by any BCU can have a significant impact on overall detection rates. In order to determine whether the target BCUs were broadly representative of BCUs nationally in their use of TICs – and therefore that findings in relation to TIC could be presented as reasonably 'typical' – the ratio of TICs per non-TIC detection in the sample were checked against the ratio in all 262 BCUs. This analysis showed considerable parity: the ratio for burglary dwelling was 0.5 for the sample and 0.7 nationally; for BOTD it was 0.5 for both; for TFMV it was 1.0 (sample)/0.9 (national) and for TOMV it was 0.4 (sample)/0.3 (national).

TICs and direct detections both comprise 'sanction detections' in the sense that they are associated with the imposition of some sanction, or at least the option of one.

The data analysis reported largely revolved around cases with these three outcomes and had to be tailored to the questions posed: to give an obvious example or two, analysis of 'how crimes are detected' focused only on detected cases, and primarily on 'direct' detections (detected non-TIC) where the police first identify and apprehend suspects; conversely, questions about why investigations failed focused – primarily – on the undetected sample. But in addition it was necessary to derive a weighted sample in order to represent the full range of cases and case attributes typically found in the BCUs under review.

Structure of the report

The remainder of this report falls into eight chapters. Chapter 2 presents the basic policy and practice issues that need to be addressed in relation to high-volume property crime investigation in any BCU, and seeks to summarise how the eight BCUs under review respond to these. Chapter 3 then outlines the critical stages of volume crime investigations, summarises how and where screening decisions are taken by the BCUs under review and identifies when attrition occurs. Chapter 4 begins to address the wider question of 'what solves crime': to do this, it starts by focusing on information that first links a suspect to a crime, and how these links are generated by police activities at the crime scene, and scene examinations. Chapter 5 moves on to assess the information that is necessary to ensure a detection, and the characteristics of offences and investigative outputs which help to predict the likelihood of detection. Chapter 6 takes this analysis a step further, focusing in particular on the relationship between strong leads, scene attendance and detection. Chapter 7 then turns the spotlight on 'indirect' detections, or offences taken into consideration (TICs). Bringing the spotlight back more fully on the paired comparisons, Chapter 8 presents explanations for the differences in investigative performance amongst the eight BCUs included in the study. Finally, Chapter 9 pulls together some of the main findings of the research and their wider implications.

2.

Investigative policies and practices in the target BCUs

The volume crimes discussed in this report tend to be difficult to detect for some of the same reasons that they are committed in large numbers. They are undertaken covertly, offenders rarely have direct contact with their victims, and those involved are able to take care to leave as few traces as possible that would enable them subsequently to be identified. In other words the crimes appear to be relatively easy to get away with. Many other recorded crime types are not so hard to detect: for example theft from shops tends only to be recognised and reported when it is detected making recorded crime detection rates very high (although the actual proportion of offences that are detected will be much smaller); violent crimes involve direct contact between victim and offender who are often known to one another, again making detection relatively straightforward¹¹.

Examining the range of BCU/offence-type detection-rates used to select contrasting volume crime detection rates in this report, it appears to be quite wide (from 2.8% for theft from motor vehicle to 17% for theft of motor vehicle). If, however, attention is instead directed at this range in terms of 'non-detection', it appears to be rather narrow: from 83 per cent to 93 per cent. It is important not to lose sight of the similarity in levels of non-detection and the challenges that this implies for the task of detecting the volume property crimes focused on in this report.

The purpose of this chapter is to provide brief descriptions of the eight BCUs included in this study, in particular their approaches to volume crime detection, as a background to trying to explain the variation that was found in their detection rates for the target crimes.

An overview of the eight BCUs

The following general points can be made about the BCUs selected for this study: the A pair could be described as 'multicultural metropolitan', the B pair as 'poor city', the C pair as 'diverse city' and the D pair as 'town and surrounding country'. AH and AL formed part of the same metropolitan force area. The remaining BCUs all came from different forces. Table 2.1 summarises some of their main attributes, which are discussed below.

11. Overall variations in detection rate are, hence, partly a function of variations in recorded crime mix – the mix between the relatively hard-to-detect and the relatively easy-to-detect. This study focuses, of course, only on the hard-to-detect.

Table 2.1: A snapshot of the sample BCUs

	Popn. per hectare	Type of settlement	Community characteristics	Other comments
<i>A. Multicultural metropolitan</i>				
AH	107	Mid-metropolitan area	Disadvantaged multicultural	Long-term poor neighbourhood
AL	57	Mid-metropolitan area	Disadvantaged multicultural, with pockets of wealth	Detection rate matched that of AH by time of cohort review
<i>B. Disadvantaged city</i>				
BH	51	Mid-metropolitan area	Disadvantaged multicultural	Inner area of large conurbation
BL	26	Regional city	Largely white working class	Depressed with long-term decline
<i>C. Diverse city</i>				
CH	22	Regional city	Bustling diverse university city	Largest BCU in force
CL	19	Section of regional city	Rich and poor, with student area	Two recently merged BCUs
<i>D. Town and surrounding country</i>				
DH	7	Regional city and hinterland	Ethnically and culturally homogeneous	Strong community identity
DL	13	Several towns and area between	Large transient population	High levels of general mistrust

Both AH and AL were densely populated, AH especially so. Both areas were economically disadvantaged with diverse, multicultural residents, though AL also included some relatively well-off areas. Both were from the same police force.

BH formed a densely populated part of a different conurbation from A, whilst BL comprised one fairly large regional city. BH was poor and disadvantaged with a significant ethnic minority population, whilst BL was predominantly white and working class.

CH was a regional capital whilst CL was part of a large conurbation. CH was by far the largest BCU in the force and accounted for about half all recorded crime there. Its population and activities varied widely, as might be expected of a major regional centre. CL

included a range of sub-areas with different characteristics – including a neighbourhood with many student houses, some affluent parts and two small housing estates. It has recently been formed from the merger of two previous BCUs and the addition of one further high crime sector.

DH was a fairly large regional town and its surroundings, whilst DL comprised a number of smaller towns and villages and the areas between them. DH was ethnically and culturally fairly homogeneous with a stable population, whilst in comparison DL was ethnically diverse with a significant transient population.

Table 2.2 gives two different measures of volume ‘crime loads’ for the eight BCUs. The top half of the table describes this in terms of numbers of recorded offences per officer within the BCU, and the bottom half the number of recorded crimes per 1,000 population.

Table 2.2: Volume property crime rates by officer and by population

	AH	AL	BH	BL	CH	CL	DH	DL
Offences per officer								
Domestic burglaries	4.0	4.2	3.4	9.3	3.9	14.5	4.9	4.1
Non-Domestic burglaries	1.3	1.9	3.8	9.8	4.4	7.6	5.0	5.1
Thefts from motor vehicles	5.6	7.4	5.1	9.8	9.8	10.5	8.7	6.5
Thefts of motor vehicles	3.0	3.2	1.8	4.5	4.0	5.3	4.5	4.6
All volume crimes	13.9	16.8	14.2	33.4	22.1	37.9	23.0	20.3
Offences per 1000 population								
Domestic burglaries	16.0	9.6	9.0	19.3	8.9	24.8	9.7	5.6
Non-Domestic burglaries	5.3	4.4	10.1	20.4	10.1	13.0	9.8	7.0
Thefts from motor vehicles	22.4	16.9	13.4	20.5	22.4	18.0	17.1	8.9
Thefts of motor vehicles	12.0	7.4	4.8	9.4	9.2	9.1	8.8	6.2
All volume offences	55.8	38.3	37.3	69.6	50.7	64.9	45.4	27.7

Figures calculated from aggregate returns provided by the forces

Table 2.2 shows that the A and D pairs of BCUs have largely similar numbers of crimes per officer: 14 and 17 in all for A, and 20 and 23 for D. In comparison, the crimes per officer for the B and C BCUs differ widely with many more in the BCUs with the low detection rates: 33 as against 14 for the high detection rate BCU in B and 38 as against 22 for C. The crime rates in relation to the resident populations vary widely, but not in ways directly associated with detection rates. In A and D the comparatively high detection rate BCU had a much higher overall recorded volume crime rate, whilst in B and C the opposite was the case.

The circumstances, resources and crime rates of the eight BCUs included in this study varied quite widely. This will present varying challenges for crime detection. The number of ways in which the BCUs differ from one another, and the fact that this is a post hoc study, limits the confidence with which judgements can be made about their relative significance.

The discussion turns now from some of the variations in the conditions faced by those trying to detect volume crime in the four pairs of BCUs to variations in the approaches adopted within them. This account is organised around a series of generic issues that have to be addressed by the police in deciding what to do in an investigation.

In reading summaries of the policies and practices amongst the eight BCUs focused on in this study, it must be remembered that both can change, for instance when key personnel move on, in response to new external pressures, and as police staff try to make improvements. What is provided here is a snapshot of the main ways of working whilst the cohort review was being undertaken. The research team depended on officers' reconstructions of what the policies and practices had been. There were often inconsistencies in what was said.

Issue 1. Of the many potential activities for the police, how much attention should be paid to investigating volume property crimes?

In AH, BH, CH and DH crime detection was a very high priority that was well recognised by the officers working there. It was expressed, for example, in vigorous performance management regimes tracking achievements against targets. In AL prevention was deemed as important as detection (although by the time of the case tracking exercise the difference in direct detection rates between AH and AL had evaporated). In BL reassurance and local community accountability took precedence over detection. In CL prevention was deemed of equal or greater importance than detection. Detection was as high a priority in DL as in DH, though in DL it was seen as a means to crime reduction rather than an end in itself, as was the case in DH.

Issue 2. Should the BCU be selective in the types of crimes on which to focus investigative attention?

Table 2.3 shows the police response officer and Scenes of Crime Office (SOCO¹²) attendance patterns. The SOCO attendance patterns are taken from aggregate figures provided by local police areas. The response officer figures are taken from the tracked data and hence relate only to the particular crime types focused on in each BCU.

12. The preferred term has become Crime Scene Examiner, though SOCO is still in more common usage. The term Forensic Practitioner is also used in some places essentially to describe the same role.

Response officer attendance rates at burglaries were consistently very high, with some slight tendency for the higher direct detection BCUs to attend at a higher rate than those with lower direct detection rates. There was much greater variation in levels of response officer attendance for motor vehicle crimes, with higher levels found in the BCUs with higher detection rates. For instance, response officer attendance rates for TFMV were more than twice as high in DH compared to DL and approximately two-thirds higher in BH compared to BL. An even greater variation was found in response officer attendance rates for the D pair for TOMV. Unlike TFMV, attendance rates for TOMV will be influenced by vehicle recovery rates, but nonetheless the difference between these two BCUs is considerable.

In general the higher detection rate BCUs had higher rates for SOCO attendance, albeit that in AL attendance rates were consistently somewhat higher than in AH. Nine of the 15 possible SOCO attendance rate paired comparisons had higher SOCO attendance rates in the higher detection BCU (and four of the six where the reverse is the case were for AH and AL, where differences in detection rates latterly disappeared). Looking at response officer attendance and SOCO attendance together reveals the variety of ways in which SOCO and response officers can be deployed. For instance for DL, the low response officer attendance rate for TOMV is partly balanced by a high SOCO attendance rate. In the C pair CH achieves higher rates of attendance for both response officers and SOCOs at TOMVs compared to CL.

Table 2.3: Crime scene attendance patterns

	AH	AL	BH	BL	CH	CL	DH	DL	
Response officers scene attendance rates for sample crimes (per cent):									
Domestic burglaries	99.0	92.6	98.5	89.4	95.7	98.1			
Non-Domestic burglaries	97.8	97.7							
Thefts from motor vehicle			62.0	38.9			84.4	40.4	
Thefts of motor vehicle					12.9	7.7	80.4	4.4	
SOCO attendance rate (per cent):									
Domestic burglaries	77.4	85.2	100.0	85.2	94.0	63.1	85.6	62.7	
Non-Domestic burglaries	67.9	73.7	41.5	73.7	41.4	27.2	55.7	34.4	
Thefts from motor vehicles	2.5	4.1		4.1	27.8	5.2	64.6	13.2	
				} 21.7 (Combined)					
Thefts of motor vehicles	4.1	9.8		9.8	53.9	13.9	32.5	40.8	
All volume offences	31.0	33.6	46.1	35.5	47.0	34.2	55.1	34.8	

Response officer attendance rates derived from cohort review cases. SOCO attendance rates calculated from aggregate returns provided by the force

Issue 3. If opting for selectivity, what criteria should be used for focusing more attention on some volume crimes more than others?

Across all BCUs, the type of crime clearly informed investigative attention decisions. Burglary took precedence over vehicle crime and domestic burglary over non-domestic burglary. However, perceived solvability also played a part in some instances.

In both AH and AL the most important offences for investigative attention were robbery and snatch theft, reflecting the fact that the Street Crime Initiative (SCI) was operating in this force at the time. However, the policy was still that all burglaries at least should be attended by a response officer. Following this a Crime Management Unit (CMU) would decide if secondary investigation was warranted and again this was routinely done for burglary. In comparison, vehicle crimes were of secondary significance and would only receive attention if the prospects of detection appeared to be good.

BL's approach to crime scene attendance and investigative attention was substantially more selective than that of BH, and took into account other priorities than detection within the BCU. For BH, where detection was deemed more important, a lower threshold of apparent solvability was used in directing efforts.

In CL, which like AH and AL was in a force where the SCI was operating, robbery was the top priority for investigative attention. Burglary was routinely investigated in both CH and CL. Non-burglary offences were attended in both if they were in progress at the time of the report, otherwise the decision to attend was at the discretion of call handlers. In CH a specialist CMU made case-by-case decisions, on the basis of members' experience, about which cases warranted investigative attention. The CMU also supported their decisions by undertaking some PNC checks and advising victims about scene preservation.

As a matter of policy DH undertook initial investigations of all reported crimes regardless of type or seriousness, though particular attention was paid to domestic burglary where CID was routinely involved. In DL crime types played a large part in shaping decisions, vehicle crime receiving attention only if prospects of detection appeared to be particularly promising.

Issue 4. What should be done to try to detect crimes?

Strategies for detection include varying mixes of set procedures and officer discretion. Moreover, they sometimes involved deployment of specialist units and work by officers from the CID. The following discussion first relates to efforts at direct detection and then to attempts to achieve TICs from those arrested.

In both AH and AL specified minimum standards were used in initial investigation. There was a six-point standard in AH, which covered 'immediate action' (for example first aid and record taking), 'scene' (for example scene log and scene preservation), 'forensics' (for example packaging and continuity), 'victim/witnesses' (for example interviewing, location and protection), 'suspects' (for example descriptions and arrest), and 'other evidence' (for example CCTV and goods stolen). A somewhat elaborated 14-point standard had been put in place in AL. Initial investigating officers had discretion in the way these standards were applied. Discretion, informed by forensic awareness training and feedback on scene preservation from attending SOCOs, was also used in deciding whether or not to call a SOCO. Following initial investigation, cases were reviewed and tracked by the CMU, which allocated them for secondary investigation by CID. In secondary investigation, officers had full discretion to proceed with the case as required by its particular circumstances.

In BH, as in AH and AL, there were set procedures in investigating burglary and vehicle crime, specifying for example houses to call on in making house-to-house enquiries. In BL, however, officers largely used their own discretion in deciding what to do. The default position in both BH and BL was that SOCOs should attend all domestic burglaries, though more were attended in BH than BL. In regard to vehicle crime overall, a higher proportion of cases were attended in BH than in BL. In BH an intelligence officer scanned all offence and SOCO reports to look for links, and in relation to cases that had not been immediately detected advised if cases were suitable for further, secondary investigation by CID. Undetected cases were otherwise passed on to local beat teams for further investigation at their discretion. In BL initial investigation was by members of the local policing team which included detectives, there being no separate CID.

In CH domestic burglaries were routinely allocated to CID, whereas only 30 per cent were in CL. In CH there were minimum standards for PCs conducting investigations, although beyond this discretion and individual initiative were used, supervised by the shift sergeant. In CL, standard checklists were available for investigating burglary (though not other crime types) and it was estimated that they were used in 60 to 70 per cent of cases. A 'substantial proportion' of domestic burglary cases were allocated to specialist 'crime scene investigators' in CL who, though not SOCOs, concentrated on finding physical evidence. A special operation had been put in place in CL to try to increase detections using physical evidence, speeding up turnaround times for fingerprints and DNA and attempting to improve the conversion of DNA 'hits' and fingerprint 'idents' into detections. However, as Table 2.3 shows, in practice SOCO scene attendance rates were much higher in CH than in CL.

In DH the policy was that all crimes be attended by a police officer and victim statements taken. The call-handler and shift sergeant used 'flexible common sense' in allocating which officers to attend. Officers attending used their common sense and initiative in deciding on initial enquiries, liaising with intelligence officers, and collecting intelligence. They submitted their reports to the shift sergeant who supervised the work. SOCOs were supposed to attend all domestic burglaries, and other offences at the discretion of the initial investigating officer. During the period of case tracking two additional officers were trained as vehicle examiners in an effort to improve the yield from physical evidence in vehicle crime. A great deal of information and intelligence was drawn from the community and used to identify suspects. In DH, officers were treated as all-round, generalist professionals, and took responsibility for the investigation of incidents allocated to them.

In contrast to DH, in DL a highly formalised approach was adopted. Set rules determined whether patrol officers would attend. These included a requirement that all burglaries be attended, except for those involving a shed or garage. SOCOs were also supposed to attend all distraction burglary scenes. In addition, they were to go to other burglaries, unless they fell into one of a number of pre-specified categories – for example where property had been stolen through an open window. In DL, a Central Crime Recording Unit (CCRU) was staffed by experienced handlers and conducted other initial enquiries. For vehicle crime, they asked standard scripted questions. The information was then passed to the Area Crime Management Unit (ACMU) to take any necessary action, validating the allegations that a crime had occurred, and mobilising any necessary reactive or proactive response. 'Fast-time' reviews were used to decide if any further investigation was warranted. Cases that were defined as serious, which included aggravated burglary and distraction burglary, were then passed to the Area Crime Unit (ACU). Little was done in DL, in practice, in relation to vehicle crime, because the perception was that few leads emerged. This was especially the case in relation to the theft of motor vehicles. However, thefts from motor vehicle received follow-up investigation more often because of the potential for physical evidence. Recovered vehicles that had been stolen were examined by SOCOs within 72 hours of recovery. Officers might also attend crimes not otherwise warranting attendance if the victim was elderly or it was thought that the incident might be part of a series. Where an officer was not allocated in thefts of motor vehicles, which was the norm when older vehicles were involved, the victim him/herself was asked to make local enquiries.

The approaches to obtaining TICs varied widely across the eight BCUs. There was no overall policy in AH and AL's force, although in practice TICs received more emphasis in AH than AL. Likewise there was no general policy in BH, though TICs were pursued vigorously in interviews with suspects. In BL the formal policy was actively to encourage TICs, with

handouts and posters for suspects and prompts for interviewers. In CH, TICs were in principle supposed to be sought in interviews, but in practice they were thought to be diminishing in number due to interviewer inexperience and lack of skill. In CL likewise TICs were encouraged, and had been a focus in the initiative attempting to improve the detections following DNA hits and fingerprint identifications. In DH, TICs were pursued very vigorously both in principle and in practice, but this was much less apparent in DL where the responsible unit, the Crime Investigation Team, had little time to pursue them.

Issue 5. At what point should active efforts to detect a crime be abandoned, and who should decide when this point has been reached?

For reasons sketched out at the beginning of this chapter of the report, the detection of volume property crimes is intrinsically difficult. In many cases the prospects of direct detection are poor. In order to make best use of resources, efforts need to be switched away from those with negligible chances of detection. This involves decisions to file cases undetected in order to concentrate on the detectable. Fine judgements are required and approaches differed.

In both AH and AL the CMU tracked cases. At the end of the investigation the CMU reviewed the crime reports to ensure that the Officer in the Case (OIC) had followed all potential leads and lines of enquiry, at which point the case was concluded through being solved or filed as 'undetected'. In BH the CID or beat sergeant filed cases undetected once they believed nothing more could usefully be done to try to detect them. In BL the Local Policing Team supervisor decided on closure. Cases would be followed up according to resource availability, though filing cases as undetected could be delayed in case something turned up to enable a detection to be achieved. In CH and CL, as in AH and AL a centralised recording and management unit generally made decisions about filing cases as undetected once satisfactory initial enquiries and any required follow-up work had been undertaken. In CL, however, if there was a suspect, the Detective Inspector made the decision. In DH the sergeant supervising the officer in the case decided on case closure having reviewed it to make sure investigation had been adequate and there was not scope for further work. In DL the Detective Sergeant or support staff supervisor of the ACMU decided on case closure once it was clear that there were no clear leads.

Issue 6. When a likely offender has been found how should they be processed?

Once suspects have been identified they need to be processed and files for use in decisions over prosecution by the Crown Prosecution Service have to be prepared. There was some variation in how this was done.

Generally suspects were passed on to specialist units once identified, for both interviewing and for file preparation for the Crown Prosecution Service. In some cases, crime-specific groups were involved, for example for many vehicle crime cases in AL and for domestic burglary cases in CL. In some cases CID would take over, as with BH (except at the weekends when the initial investigating officer would process them) and CH. In DH joint performance management systems stimulated high levels of co-operation between the CPS and the police, in particular with checks by the supervisor of the officer in the case, the file preparation unit and the CPS. In DL a specialist 'Crime Investigation Team' took responsibility for prisoner handling and case-building.

Issue 7. How should implementation of the BCU policies and practices be managed?

The main tools for managing implementation of BCU policies and practices seemed to be performance management, oversight by specialist units and staff supervision.

Performance management was a key method of stimulating attention to detection, and adherence to local policies and priorities, in most BCUs. This was evident in six of the eight BCUs (all but BL and CL). It was also starting to be imposed in CL in the light of their relatively low levels of detection, but was not in place at the time of the case tracking. In BL, there was a strong emphasis on professionalism, discretion and quality in police work, rather than on quantitative measures of performance.

In DH and DL responses to performance management differed, in ways associated with broader methods of managing investigative work. In DH individual officers were subject to personal and ongoing review and oversight by their supervisors. Uniformed officers had frequent and close contact with CID, from whom they learned skills, for example in interviewing and obtaining TICs. Officers in proactive units were regularly rotated to give everyone some exposure to their work. The aim was to produce able all-rounders. Performance management was seen in a positive light in DH, and morale was high. In DL, whilst overall figures were tracked, individual officers in specialist units of the investigative process felt they were just left to get on with their work unsupported, and they perceived their performance was assessed based on how well they followed procedures.

Specialist units had been developed in some BCUs to manage or have oversight over parts of the investigation process. In AH and AL, Crime Management Units operated and were largely responsible for overseeing investigative work, with some involvement where possible by the supervising sergeant. In BL the Local Policing Team took responsibility for incidents in their area and determined appropriate ways of dealing with them. For volume crimes, CH, CL and DL in particular used specialised units to perform different parts of the investigative process.

The extent and nature of supervision across the different components of the investigative process was highly variable. Supervision was stressed as a key means of managing and improving investigation in some high direct detection rate BCUs. In BH, beat sergeants supervised the often inexperienced officers, who performed both beat and response roles. The CID sergeant supervised the work of DCs. In DH, quality was checked and feedback given in relation to all cases at all stages in the investigative process. In some BCUs dip sampling was used for some investigative work to check that it was being undertaken properly. In DL the Detective Inspector dip-tested crime reports daily as a method of monitoring the quality of the work of the Central Crime Recording and Area Crime Management units. In AH and AL supervisors dip sampled call handlers' work. In BL the work of SOCOs was monitored through their supervisor regularly accompanying them on scene visits.

'Procedural' and 'discretionary' approaches to investigation

Two broad approaches to investigation emerge from the analysis of the eight BCUs: one might be termed 'procedural' and the other 'discretionary'. Each is what social scientists refer to as an 'ideal type', not in the sense that it is desirable but in the sense that it is made up of a series of linked, recognisable attributes that make sense as a totality. Ideal types are rarely found in reality in their purest form. They do however help to understand apparently complex patterns.

The discretionary approach involves case-by-case decisions about which cases to concentrate on in investigation and about how to conduct the investigations, in the light of the specifics of the case and locally informed decision-maker's notions about what is appropriate. It involves acceptance of responsibility for whole cases through all stages of the investigative process. It assumes all-round, generalist competence in investigation. Accountability is for outcomes and for well thought through, ethical, informed and professional conduct. The purpose of supervision is to review case decision-making and follow-up. There is a strong emphasis on on-the-ground knowledge of the community, cases arising and the conditions producing them. Even where specialists are brought in, it is at the behest of the 'case-owner', who decides how it should proceed.

The procedural approach involves set prescriptions about what will be investigated and what will be done in each case. What is investigated, how it is investigated, what records are kept, and who is drawn into the investigation under what circumstances is determined in advance by a set of pre-specified procedures, preferably derived from established good practice. Efficiency and effectiveness are deemed to be achieved through specialists

implementing the specified procedures in standard, well-defined, well-understood ways. There is a strong emphasis on forensic evidence. The role of supervision is to check procedural adherence. The procedural approach involves the division of labour as one stage or part of the investigation is processed by one specialist, and passed on as appropriate to the next to undergo further standardised treatments.

If problems occur in practice or performance, where procedural approaches prevail the response is generally to change the procedures, to monitor adherence to them more vigorously, or further to reduce remaining discretion. This is in the interests of imposing what are deemed overall to be the most effective and ethically defensible behaviours. The discretionary approach reacts rather differently. Here the capacity of the individual or individuals involved will be the focus of attention. Otherwise the issue will be that of supervision, education, or mentoring to improve the capacity for informed and sensible decision-making.

No BCU fell fully into either camp, though both types were easily recognised by police officers and their managers. The two BCUs that came closest to our ideal types were DH and DL. But the other BCUs also resembled one approach much more than the other:

- AH and AL were both largely 'procedural'.
- BH was mostly 'procedural' and BL 'discretionary'.
- CH was more 'discretionary' and CL more 'procedural' than its counterpart.
- DH was largely 'discretionary' and DL 'procedural'¹³.

One form of mix between the two ideal types might be termed 'sequenced discretion,' where cases pass through the hands of specialists, and the specialists exercise substantial discretion during the stage for which they are responsible before handing it over. This was largely what characterised practices in CH.

It is clear that there is no single, universally applied model of investigation. The model used may be strongly influenced by (a) the investigator/response officer profile (b) the offender/community profile and (c) leadership styles. In practice, either of the major approaches identified here can be implemented well or badly: discretion can be arbitrary and ill-informed or intelligent and well-informed; procedures can be sensible and well-adhered to, or foolish and disregarded. These issues are picked up again in Chapter 8.

13. Of course, in DH the call-handler lacked the discretion not to allocate a reported crime for officer attention. The procedure was that all should be investigated. The main site for investigative discretion lay with the initial investigating officer, in consultation with his or her supervisor. Hence, even where discretion is highest, procedure is not entirely dispensable.

Overview of policies and practices

Table 2.4 provides an overview of the investigative policies and practices across the eight BCUs. It combines data from the case file analysis; summary statistics provided by the BCUs; summaries of the policies and processes and perceptions gleaned from interviews with officers. The differences are presented here under three headings: 'resources', 'regimes' and 'activities' (with the attributes of 'cases' coming under review in the sections that follow). The significance of resources, regime and activity differences for explaining detection pattern variations is discussed at some length in Chapter 8. Here only some brief comment on the patterns of association is given.

Table 2.4: Variations in approach to investigating volume crime

	AH	AL	BH	BL	CH	CL	DH	DL
Resources								
Police officers to crime	●●●●	●●●●	●●●●	●●	●●●	●●	●●●	●●●
Regime								
Importance of volume crime detection	●●	●●	●●●	●●	●●●	●●	●●●●	●●●
Officer case ownership	●●	●●	●●●	●●●	●●	●●	●●●●	●
Emphasis on performance management in detections	●●●	●●●	●●●●	●	●●●●	●●	●●●●	●●●●
Level of officer supervision	●●	●●	●●●●	●●	●●	●●	●●●●	●
Level of officer discretion	●●●	●●●	●●	●●●●	●●●	●●	●●●●	●
Activities								
Proportion of crimes investigated	●●	●●	●●●●	●●	●●●	●●●	●●●●	●●●
Police attendance rates	●●	●●	●●●●	●●	●●●	●●●	●●●	●
SOCO attendance rates	●●	●●	●●●	●●	●●●	●●	●●●●	●●
Emphasis on obtaining TICs	●●●	●●	●●●	●●	●●	●●	●●●●	●●●
Time cases kept open	●●●	●●●	●●●●	●●	●●	●●●	●●●●	●

●●●● = High ●●● = Medium high ●● = Medium low ● = Low

Table 2.4 shows that on balance detection rates tended to be higher where the following conditions were met:

- there were more police officers in relation to crime (two of the four paired comparisons, with two the same)
- higher importance was attached to detections (three of the four paired comparisons, with one the same)
- the officer had ownership of the case (one of the four comparisons, with three the same)

- performance management relating to crime investigation received greater emphasis (two of the four comparisons, with two the same)
- there was a high level of officer supervision (two of the four comparisons, with two the same)
- a higher proportion of cases were investigated (two of the four comparisons, with two the same)
- there was a higher police attendance rate (two of the four comparisons, with two the same)
- there was a higher SOCO attendance rate (three of the four comparisons, with one the same)
- there was greater emphasis on obtaining TICs (three of the four comparisons, with one the same)

Less consistent patterns were found in relation to the level of officer discretion and the time over which cases were kept open. In regard to officer discretion, in two of the three pairs where there was a difference, higher discretion was associated with a higher rate of detection, but the reverse was true of the third. Where officer discretion was not associated with higher detection rates, officers were inexperienced and had relatively little supervision to inform their use of discretion. In regard to the time cases were kept open, in two of the three comparisons, keeping cases open longer was associated with a higher detection rate. In the third, the aim of keeping cases open was less to do with maintaining live investigations and more to do with the hope that 'something might turn up'.

Summary

- The high volume property crimes focused on in this report are intrinsically difficult to detect, typically taking place covertly without direct contact with the victim. Non-detection rates varied only from 83 per cent to 97 per cent.
- The context for efforts at crime detection varied amongst and between the four pairs of BCUs, in terms for example of size, population density, settlement type, and community characteristics. The study was not however well-suited to gauging with any precision the respective importance that these might have for detection rates.
- Both initial response officer and SOCO attendance rates were found to vary markedly, particularly for vehicle crimes. However, a low attendance rate by initial response officers was not necessarily associated with a correspondingly low attendance rate for SOCOS.

- For two of the pairs of BCUs there was a marked positive relationship between the number of crimes per police officer and the detection rate.
- The priority attached to crime detection, the approaches adopted and the methods of management used in relation to volume crime detection differed in many respects that appear to be related to variations in detection rate. Higher volume crime detection rates were generally associated with management attaching importance to detection; the application of a performance management regime attending to detection; officer 'ownership' of cases through the investigative process; active front-line officer supervision, police officer and SOCO attendance at – and active investigation of – a larger proportion of cases; and a greater emphasis on obtaining TICs.
- Two broad approaches to investigations emerge: the 'procedural' and the 'discretionary'. The procedural approach involves specified decision rules covering what to investigate and how to investigate it, often with division of labour between specialists responsible for differing tasks in and stages of investigation. The discretionary approach involves case-by-case decision-making based on their individual attributes. There are relatively few rules specifying what is to be done, and relatively little division of labour.

Explanations for variations in BCU crime detection rates are picked up in more detail in Chapter 8 of this report.

3.

The investigative process and attrition

Having presented an overview of the policies and practices in the target BCUs, this section turns to examine another two of the main objectives of the research: to identify the critical stages of volume crime investigations and when attrition occurs. These deceptively simple questions require a multi-layered response. The commentary here starts by highlighting the key 'process decision' points in the investigation of volume crime and then provides a short account of how these are taken in the target BCUs: focusing on the point at which cases are screened from further investigative activity. The account then moves on to focus on various aspects of attrition.

Key decisions in processing reports of volume crime

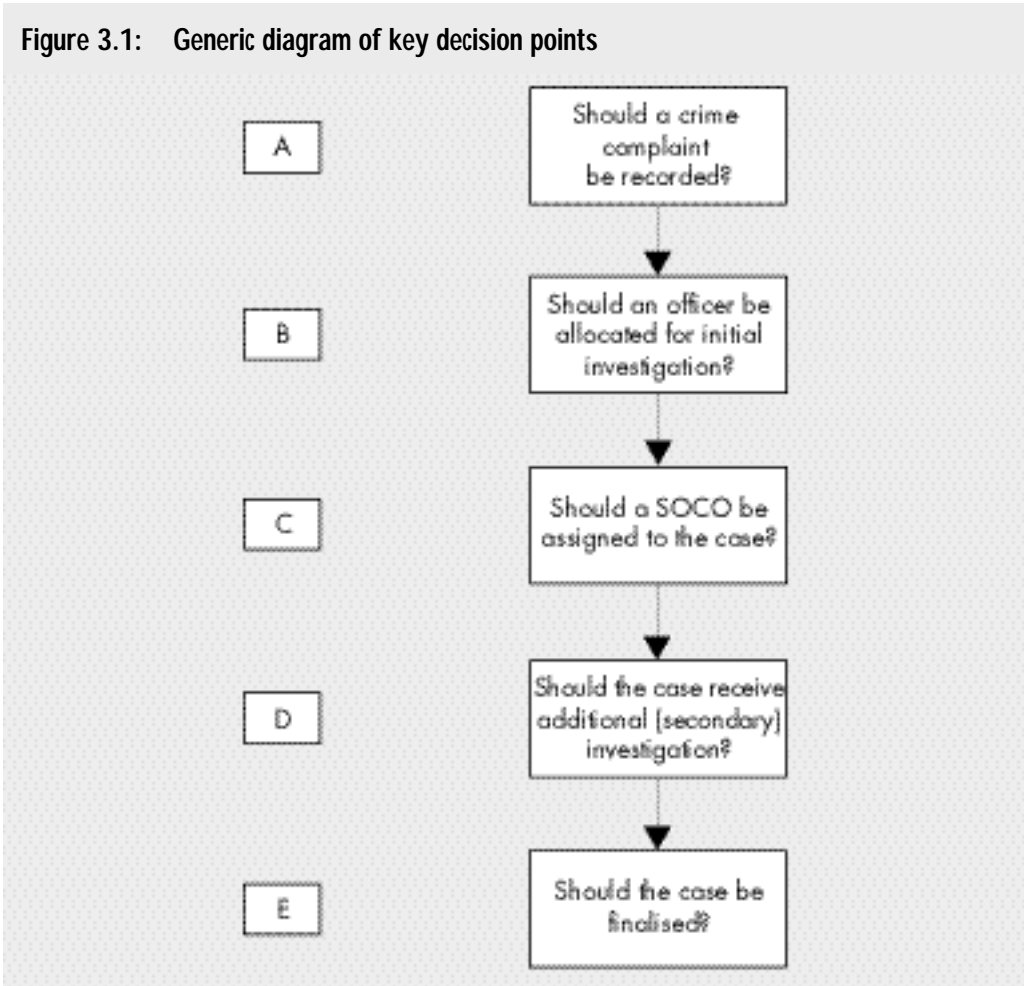
In Chapter 2, attention was focused on seven key issues that have to be addressed, by senior management in any BCU, about strategies for dealing with volume crime (e.g. prioritisation, resource commitments, etc.). These in turn have to be translated into decisions, on a case-by-case basis, on how to respond to allegations that are received. As Chapter 2 indicates, practices vary widely in the BCUs under review and it helps to 'start with the basics' in dissecting what happens.

The critical stages of volume crime investigations can be separated in various ways. In its early stages, the 'PIP' programme (Chapter 1 refers), with its orientation towards accreditation, distinguished seven "significant points" against which officers were to be assessed – these ranged from 'initial contact/initial response' (called SP1) to 'file preparation trial' (SP7). These distinctions had been adopted from the ACPO Volume Crime Investigation Manual. With greater orientation towards attrition – in line with the focus of the current study – Hewitt (2002) chose to identify five key process points in an investigation where attrition is likely to occur. These were identified as crime recording; initial crime management; investigative strategy/management; custody procedures and post-charge management.

Following the earlier emphasis on decisions, the commentary here focuses on the principal decisions that have to be made in responding to volume crime. To this end, Figure 3.1 presents a generic diagram to show the decisions typically confronting the police, in roughly chronological order (it should be noted that the diagram does not represent all types of crime or all types of cases equally, and that – with a view to covering decisions affecting the

majority of cases – it is orientated more towards ‘upstream’ decisions than Hewitt’s five key process points). The text that follows describes these key decisions in more detail, and seeks to convey the message that different BCUs can handle each stage in very different ways.

Figure 3.1: Generic diagram of key decision points



A. Crime recording

Different people are responsible for handling calls and recording complaints in different Forces. In most Forces there is a centralised Control Room or Incident Room to manage calls from the public, but staff can be either officers or support staff, or some mix of the two. In some BCUs there are standardised checklists for what information should be gathered from the caller, whereas in others it is a matter of judgement, and this can also vary by crime type. The first decision taken (and one that is often made at an earlier ‘switchboard’ level) is

whether a call represents a report of a crime. If it does, a decision to record a crime complaint needs to be made in accordance with the National Crime Recording Standard (Simmons et al., 2003).

If the report represents a crime then a recording process is started, and if not the call is usually diverted to another unit responsible for giving advice and other support. In most BCUs the recording process will start with an incident 'log'. Crime reports are often generated in parallel with the log, and crime report numbers are usually added onto the log. Importantly, the full circumstances needed to decide whether and how an incident should be 'crimed' are sometimes not known until someone has attended the scene¹⁴. However some call-handling staff have responsibility for conducting some or all of the initial investigation (see next stage).

B. Initial investigation

The decision to deploy an officer to respond and conduct initial enquiries is not taken in a uniform fashion across or within BCUs.

There are two decisions being made – though often they are dealt with together, or made – by default – through following policy directives. The first decision is whether an officer should be dispatched to the scene, and the second is what priority is given to attending the scene¹⁵. Most BCUs, through the call-takers and radio controllers in Communications Rooms, will provide an immediate response to every 'in progress' crime. However, if a report does not match the criteria for a rapid response, then some BCUs will still allocate an officer to every report of a particular type of crime (e.g. burglary dwelling cases) to attend within a longer time-scale, whilst other BCUs will take details of the crime by phone and will review the case before deciding whether an officer will attend. However, this means that for all volume crime reports received in a particular BCU, the decision to provide an initial investigation varies depending on different criteria. BCUs decide to screen certain cases in and out of the investigation process, to manage their resources so that only the most 'detectable' cases are attended by officers (or those that are deemed most serious). Who makes these screening decisions also varies across BCUs and by crime type: sometimes a centralised unit allocates officers whereas in other cases allocation may be decided by a local/shift supervisor. It should be noted that for many cases the investigation process will jump to stage E – case finalisation – after this stage is complete.

14. For the same reason, crime reports are not infrequently reclassified as more details are known: for example a burglary could turn out to be incorrectly classified as criminal damage.

15. If it is decided to attend a crime scene, decisions of course have to be made about what activities are appropriate there, although some BCUs (as Chapter 2 indicates) will dictate some to be obligatory.

C. SOCO attendance

The decision to have a SOCO attend the crime scene or be involved in the case can depend on their availability, the crime type, and policy in the BCU. In some BCUs the officer in charge of the case uses his or her discretion to determine whether a SOCO is needed. In others, SOCO attendance will be determined by force or BCU policy. In both situations there would be variability due to resource limitations and the higher priority of some crime types over others. As indicated in Chapter 2, there are huge variations in attendance rates by BCU, and by crime type.

D. Further/secondary investigation

In some BCUs a clear decision is made whether to allocate additional resources to those cases not detected as a result of the initial investigation. However, in many BCUs the initial investigation is continually reviewed and additional elements of the investigation pursued as the 'supervisor' (which may be a line manager or a separate department) sees fit.

If a decision to conduct a further/secondary investigation is made it depends on several factors. Firstly it depends on whether a case is deemed to have any 'detectability' and is therefore worthy of additional investigative time from police. How this assessment is made varies across and within the BCUs. The decision to conduct further investigation can be made by a central unit (e.g. Crime Management Unit) or by individual officers or their supervisors. Some BCUs leave undetected cases open for on-going investigation whereas others prefer to close undetected cases quickly. Whether and how CID is involved affects this decision, as will the type of crime and the perception of resource availability within the BCU. Furthermore, some groups of cases are the subject of special operations, which are usually time and place specific, therefore compounding the plethora of outcomes in relation to this stage of the investigative process.

E. Case finalisation

The decision to file a case as detected or undetected concludes the investigation (excepting unusual instances where 'cold' cases are revisited). Who makes this decision can have a profound impact on the style of investigation, investigative performance in the BCU, and the likelihood of other stages of the investigative process occurring. Not surprisingly different BCUs take different approaches to case finalisation. To manage their workloads successfully, some prefer to organise call management and case finalisation centrally, whereby one unit makes the decision to open and to close a case. Others prefer to have these decisions made using the experience and judgement of local/shift supervisors.

Screening strategies in the target BCUs

The balance between obtaining investigative effectiveness (i.e. detections in all possible circumstances) and investigative efficiency (i.e. limiting follow-up work to those cases with potential only: in the interest of economy and meeting other demands) comes to the fore in the debate about case screening. The commentary in Chapter 2 indicated that a significant proportion of reports of volume crime are effectively screened out soon after they are received and do not warrant any police response 'at the scene'. This occurs in particular in relation to theft of motor vehicle offences (where attendance ranges from 4% to 80% of offences) and thefts from motor vehicles (with a range from 39% to 84% attendance), but is much less common for burglary.

'Screening' is not however restricted to the decision of whether or not to attend a crime scene. It should be noted that one hallmark of the 'generic' commentary provided above is that it is not the norm for there to be a clear distinction between 'primary investigation' (which many will argue is afforded to all cases, even if this is carried out by phone) and 'secondary investigation' (pursued only if a case offers continuing leads). Each decision in the process represents an opportunity to screen some cases out of the process, so that more of the finite resources available can be given to cases where there is a better chance of a detection or conviction. The research literature on crime investigation has pointed out a blurring of the classic primary/secondary distinction (see Appendix 7), but this research emphasises that screening decisions are taken at virtually all points of the process.

In line with the variety of process in the different BCUs, there is variation in the ways that screening takes place. The commentary below offers a short summary of the specific approaches adopted in the eight target BCUs, and a table providing some supporting data is presented in Appendix 6. Following this, an attempt is made to group together the disparate approaches applied.

In group A: BCUs AH and AL were from the same force, and their screening decision processes were the same. They closely resemble the process summarised by Jansson (2005). They routinely allocated officers to all burglary reports for an initial investigation, and this scene attendance was followed by 'screening for secondary investigation'. This is a 'formal' exercise, and crime reports in their systems record the result of the secondary screening decision and who made it. The secondary investigation, if one takes place, is allocated to a different (normally a specialist) team. In practice the research found that 'continuing investigation' would have been a more appropriate term than 'secondary investigation' because the next stage seemed always to pick up and continue lines of enquiry identified, but not concluded, by the officers who made the initial response.

In group B: In BH there was no formal screening process. All burglary dwelling and vehicle crime incidents were allocated to an officer for initial investigation (although in the latter stages of the fieldwork for the study some vehicle crimes started to be screened out). All initial investigation reports for burglary were then passed to CID for further investigation and all vehicle crimes to the beat sergeant. Reports would then be filed as undetected by them when they thought there was no benefit in keeping the case open. Case finalisation was therefore the only screening process. In BL the situation was slightly more complex, in that cases reported within 15 minutes of taking place were passed on for resources to be despatched (and for the attending officers to update a skeleton crime report) while incidents that were less 'fresh' were passed to a crime processing unit who created the crime report by phone. The crime processing unit then passed the majority of burglary cases and some vehicle crime back for an initial response and screened out (filed as 'undetected') those cases that they believed had no possibility of detection. There was no further screening. All burglary cases were passed to a specialist operation unit that would finalise the case, while vehicle crime was supervised and finalised by the local police team supervisor.

In group C: CH only allocated an initial response in the first instance if there was a 'danger to life or property' and passed all other cases to their Crime Information Bureau for initial investigation by phone. Then the crime reports from the scenes (if no arrest has been made) and the crime reports taken by telephone were reviewed together by a Crime Management Unit and those that had the greatest likelihood of detection were allocated for initial investigation. There is the possibility of a further stage of 'secondary investigation' if the incident was picked up as part of a special investigation. In CL there was a difference between burglary and vehicle crime. Burglaries were always allocated a response (immediate, if reported in progress; within longer period, if not) but vehicle crime only received a response if reported in progress. In CL the process is similar to AH and AL for burglary, with cases that have received initial investigation going to the local crime evaluator: those screened in are allocated for further investigation by a specialist unit. However, for vehicle crimes the local crime evaluator received reports taken over the phone for most of the cases, and cases were allocated to uniform, CID or screened out depending on solvability, seriousness and complexity.

In group D: The policy in DH was to visit and obtain a statement from the victim wherever possible, so there was no initial screening of the response. All crimes were then managed on a continuous basis by the supervisor and finalised when they believed there was no further action that could be taken. DH therefore had no screening process in place. DL was much like CH and only allocates a response if there was a 'danger to life or property' and passed all other cases to their Crime Information Bureau for initial investigation by phone. The cases were then screened for initial response or further investigation.

It is not easy to group together the myriad policies and procedures summarised here, and to do so runs the risk of simplifying complex arrangements that are likely to have been tailored specifically to meet force and BCU priorities, resource restraints, the demands of the local community and perhaps many other influences. But it seems that three distinct approaches emerge:

- 1) Screen before responding (unless in progress)
- 2) Screen after responding
- 3) Don't screen at all, except for case finalisation.

The first approach, of course, represents the position of police units most concerned with maximising investigative efficiency and the latter that of the police unit more heavily focused on achieving investigative effectiveness.

The second issue is who it is that does the screening. The generic groups seem to be:

1. A call-taker, or receiver, in an operational control room
2. A crime recording team
3. A central crime management unit
4. The investigation supervisor (though a further distinction could be made between supervisors responsible for the investigation so far completed, supervisors for the further phase of the investigation that would continue if screened in, and supervisors who are responsible for all parts of the investigation).

The current study cannot endorse any of these strategies. The principle behind screening out apparently unsolvable cases is of course that the resources thus saved can be diverted to moving an increasing number of 'solvable' cases to a successful outcome. This theory has, however, only been promulgated for screening for secondary investigations. It is not entirely clear that the theory will hold true for screening for initial response. In theory the model from DL and CH ought to be the most efficient process in that response vehicles are reserved for just the cases where there is the best perceived chance of a detection at the scene, and then investigative resources are only allocated to cases assessed as having the best chance of detection. In both BCUs screening is managed by a central unit, which is responsible for the whole process and also reviews the cases until lines of enquiry are exhausted. However, although CH was a good performer, DL's performance was poorer than its comparison BCU. Moreover, AH and AL, part of the same force, shared identical methods of screening for secondary investigation, but their performances differed substantially (albeit changes in their relative performance occurred later: as reported in Chapter 8).

Not only is there no simple association between detection rates and those BCUs which apply different forms of screening, the suspicion must be that screening is not being used to make the most efficient use of limited resources, but to make absolute savings – in short, that the resources that might be saved from screened out cases are not applied elsewhere. In Chapter 2, higher attendance rates were one of a number of factors associated with higher detection rates in some of the pairs. There is clearly no simple association between detection rates and screening policies, but the level of initial attendance and the criteria for selecting scenes to attend are likely to be critical factors in the success of the investigative process: this issue is explored further in Chapter 6.

An overview of attrition in volume crime cases

Having discussed some of these initial processes at the early stages of an investigation, it is helpful – more fully to understand attrition in volume crime – to begin to identify a number of intermediate stages at which cases or suspects drop out. The account that follows focuses on cases, as this provides the closest parity to detection rates (a crime is detected if any of the suspects associated with it are charged) but it will not necessarily equate to ‘people’ as they would appear in court records¹⁶.

The extent of attrition in cases involving suspects is presented below but a number of limitations need to be borne in mind:

- Suspects are not necessarily the offenders: there is no means of establishing, when a suspect is not proceeded against, whether this represents a failure to gain evidence of involvement, or that investigation has accurately exonerated the suspect.
- Case files are often incomplete (‘because an action or event wasn’t recorded doesn’t mean that it didn’t happen’). Police records and police systems often hold no details of prosecution and conviction. In particular the recording practices in the force representing AH and AL were not sufficiently robust in terms of prosecution and conviction to be included, which required these two BCUs to be excluded from analyses relating to these two stages.
- It is not clear where to put offences detected by being ‘taken into consideration’ into a map of attrition. The view could be taken that indirect detections represent attrition from the numbers of potential convictions, but they could equally well be

16. An alternative measure of attrition would be to focus on individuals. One offence may have a number of suspects associated with it and one could focus on how many suspects there were and how many of those proceeded through to conviction.

represented as cases that have generally been filed and are then effectively 'rescued' from attrition.

Looking at attrition by cases, the following stages could be monitored by means of the cohort review exercise:

- Suspect identified: cases where someone was caught 'red handed' or a specific name was given by the complainant, intelligence sources, or a witness¹⁷.
- Suspect arrested: cases that contained a record of a suspect as being arrested¹⁸.
- Charged or cautioned: cases where one or more suspects were charged or cautioned, or are assumed to have been charged (because although the record might not have details of the charge being made, the detection was through a suspect being charged).
- Prosecuted: cases where at least one suspect was prosecuted¹⁹.
- TICs: cases detected through an offender asking for the case to be 'taken into consideration' by a court.
- Conviction: cases that resulted in one or more offenders being convicted at court.

The attrition process, based on these benchmarks, is shown in Figure 3.2: the graph provides the percentage of all cases that reached each stage. The figures are based on weighted data (to include detected and undetected cases in their actual proportions); however, to avoid the findings being dominated by the BCUs in the study that had the greatest number of cases, the percentages are the average of the BCU figures rather than the overall percentage. This gives each BCU equal influence on the chart. However, the researchers were not able to find full prosecution and conviction records in AH and AL, or in DH and DL. Consequently these BCUs were removed from the averages.

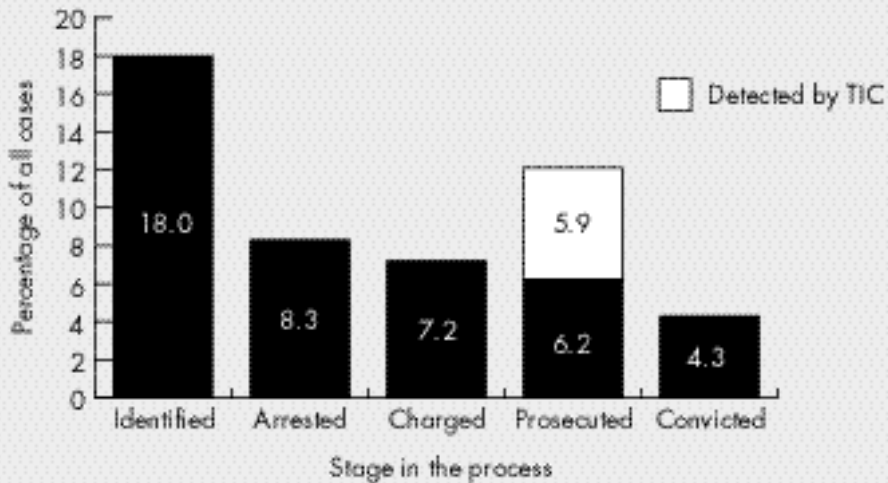
17. To avoid anomalies, cases that were detected but did not record how the suspect was identified were also included in this category.

18. In one per cent of all cases the other circumstances of the case implied that the suspect was very probably arrested but the arrest was not recorded in the case file. These would represent an increase of 12% in the overall percentage of suspects arrested. These cases were not counted in this analysis.

19. There were a small number of cases (2.3%) in which the case was cleared up by being TIC'd, but an offender had been recorded as being prosecuted. These could represent changes in the decision on how to proceed with a particular offence, or cases where one offender was prosecuted after the offence had been cleared up by being TIC. For clarity, these cases have been excluded. This has the advantage that the cases detected by TIC can be added to the cases prosecuted to give a combined measure of cases that 'went to court' without any double counting.

Figure 3.2: Attrition by cases

Proportion of cases with one or more suspects at key benchmarks, all BCUs, average of average (per cent)



Based on weighted data. N=45,811. An average of the individual BCU percentages was taken to give equal weight to each BCU.

'Identified' is defined in the text above

AH, AL, DH and DL were excluded from the prosecution and conviction stages

Another way of summarising the trends found here is to express the number of cases at each stage as a percentage reduction from the previous. Applying this approach reveals that:

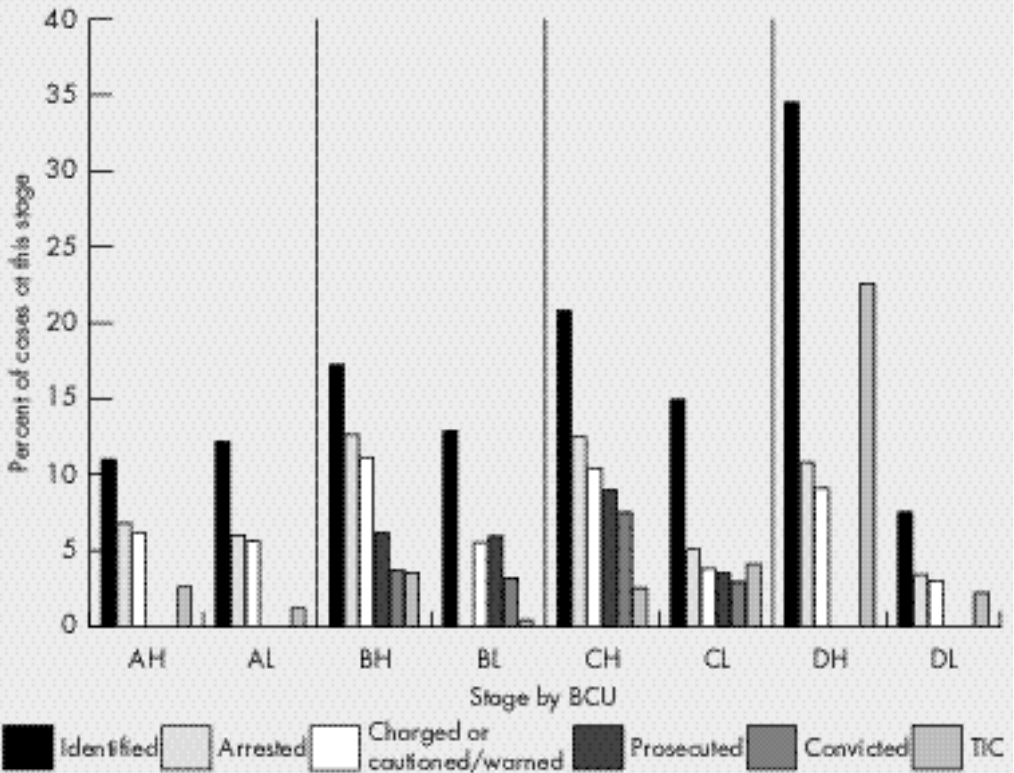
- 82.0 per cent of volume crime cases in the target BCUs did not lead to any suspect being identified through the investigation;
- where a suspect was identified, just over half (53.9%) did not lead to an arrest being made;
- where an arrest was made, only 13.4 per cent of cases did not lead to charges being laid or a warning or caution given;
- where charges were laid, less than one in ten (7.7%) failed to result in a prosecution; and
- where a prosecution was initiated, about one in three cases (30.1%) did not result in a conviction. (The final conviction data is likely to be a minimum figure due to the possibility that not all outcomes were included in the case files.)

In short, the attrition of cases is most severe in finding a suspect and making an arrest – however, because of the amount of time that has already been expended in getting to that stage in the process, every reduction thereafter could be seen to represent a lost opportunity in terms of ‘wasted effort’.

Figure 3.3 breaks down the percentage figures at each benchmark, by BCU (as in Figure 3.2), showing considerable variations between them.

Figure 3.3: Attrition by cases by BCU

Proportion of cases with one or more suspects at each stage, by BCU (per cent)



Based on weighted data. N=45,811 weighted. AH, AL, DH & DL are excluded for prosecution and conviction stages. In BL, custody records were not always available resulting in an anomaly in the figures that fewer cases - 5.3 per cent - were charged than were prosecuted - 5.9 per cent. The charge percentage has been removed from the chart.

Generally the figure points to the fact that, except in the comparison of AH/AL, the higher performing BCUs have a higher proportion of cases with suspects than their lower performing counterparts, especially at the earlier stages of an investigation. More specifically, it indicates:

- in AH and AL the figures display considerable parity, but the proportion of cases where suspects are identified is generally low compared to other BCUs (but not as low as DL);
- in BH and BL the initial differences between them at early stages in the number of suspect identifications largely disappear by the point of conviction. Despite its higher clear-up rate, BH seems no better at prosecutions and convictions;
- in CH and CL, CH outperforms its paired BCU at virtually every stage in the cycle. It is also notable that while it has the second highest proportion of identifications of any BCU (after DH) it proves much more efficient than DH in translating these identifications into arrests; and
- in DH and DL, the most notable features of course are the very high proportion of cases where a suspect is identified in DH and its proportion of TICs. DL, in stark contrast, commences with the lowest proportion of identifications of all the BCUs, but is reasonably successful in reducing attrition from this point onwards.

Summary

This section of the report sought to identify the critical stages of volume crime investigations, and when attrition occurs. It found that:

- there is no clear distinction, as suggested in some of the research literature, between 'primary investigation' (afforded to all cases) and 'secondary investigation' (pursued only if a case offers continuing leads);
- three distinct approaches to screening seem to emerge: that of screening out undetectable cases before responding (unless crimes are in progress); that of screening after responding; and policies of not screening at all, except for case finalisation. The first approach, of course, represents the position of a police unit most concerned with maximising investigative efficiency and the latter that of the police unit more heavily focused on achieving investigative effectiveness;
- in 82 per cent of cases no suspect was identified and – where a suspect was identified – just over half did not lead to an arrest being made; and
- once a suspect has been named or identified, attrition is most severe in finding the suspect and making an arrest: just over half did not lead to an arrest being made (representing only eight per cent of all cases). The rate of attrition is lower at the later stages of an investigation, but because of the amount of time that has already been expended in naming or identifying a suspect, every reduction thereafter could be seen to represent a considerable 'loss to the system'.

As indicated in Chapter 2, burglary and vehicle crime are hard to detect because offenders generally try to avoid contact with their victims and not to leave traces that would enable them subsequently to be identified. Against this background, this chapter looks at information that first links a suspect to a crime, and how these links are generated – through police activities at the crime scene, and scene examinations and the use of forensic techniques.

How crimes are detected

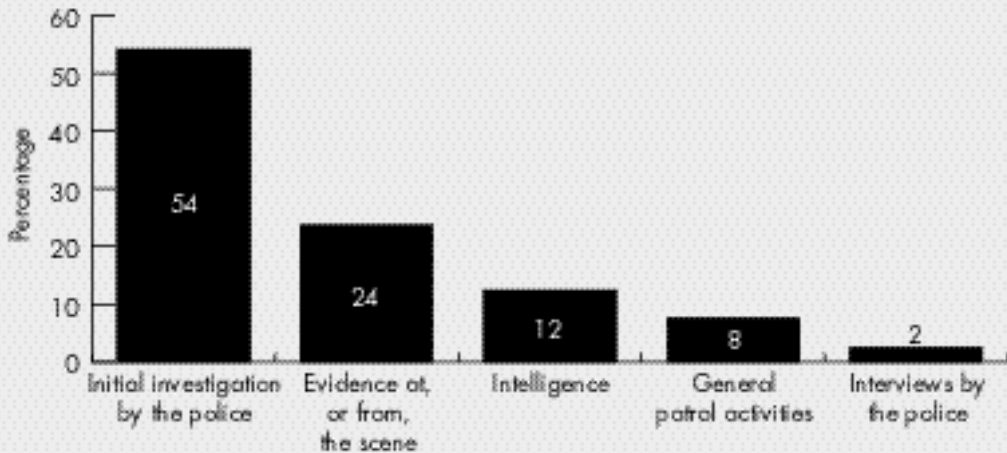
That the outcomes of volume crime investigations are heavily dependent on ‘initial contact and response’, and thereafter on ‘scene assessment’ and ‘information obtained from the victim and witnesses’, is one of the consistent messages from the previous research literature (see ‘Background’ in Chapter 1). These umbrella terms, however, encompass a wide range of activities. One of the aims of the cohort review exercise was to endeavour, as far as possible, to disaggregate the various factors at play, and in particular to determine whether there are significant differences between the four types of crime under scrutiny.

There is a common misconception that crime, particularly less serious offences, can generally be solved by one single source of information: say apprehending a suspect close to the crime scene, a DNA match, or a fingerprint identification. While there can be no doubt that the one item of information may often trigger all subsequent activity, the reality – as most police officers will attest – is often more complicated (few suspects in modern times ‘sing like a canary’ when found in compromising situations). Recognising this, the study sought to separate the information or lead that provided the ‘first link’ between suspect and the crime, from the information/leads that enabled the offence to be detected (or, in the majority of detected cases, charges to be laid).

Making the ‘first link’ between a suspect and a crime

The cohort review indicated that the ‘first links’ between suspect and crime (in direct detections) occur in a wide variety of circumstances but the large majority appear to be associated with the initial enquiries. Figure 4.1 presents a broad breakdown for all volume crimes combined.

Figure 4.1: First links between the suspect and offence: direct detections of all volume crimes



Unweighted. N = 950 cases (63 cases where the 'first link' was unclear were excluded)

Those links occurring at, or around, the scene of crime fall into two main categories:

- Suspects caught directly as a result of the initial police investigation: that is, caught in the act or thereabouts, or recognised/known or suspected by a victim or witness – and subsequently caught. These 'initial investigations by the police' accounted for just over a half (54%) of all direct detections.
- The offender left some trace of his/her presence – principally, though not exclusively, through fingermarks, DNA or CCTV images – that were collected, and associated with the offender who was subsequently caught (these cases are grouped together under the label of 'evidence at, or from, the scene' in subsequent discussion). These cases accounted for just under a quarter (24%) of all direct detections – with some eight in ten of them deriving from forensic material and about two in ten from CCTV.

In the case of the remaining direct detections, suspects were identified on the basis of information that typically arrived later, namely through:

- intelligence associations – derived from informants, targeting known prolific offenders, or where the suspect was linked through using stolen motor vehicles in other crimes, or being found with stolen property. These accounted for 12 per cent of all direct detections;

- 'general patrol activities' – for example identifications derived from stop and search activities, random police patrols unrelated to the specific investigation, or where the suspect was stopped by the police for acting suspiciously/driving dangerously. These accounted for eight per cent of all direct detections;
- interviews on other matters can sometimes reveal offences previously not reported, or reported but not recorded by the police²⁰: these accounted for two per cent of all direct detections.

Direct detections based on interviews, intelligence or general patrol activities generally happened after the event, and if derived by 'series connections', they took place much later. However, if part of a proactive investigation, they could happen more rapidly. The circumstances and activities behind the largest of these five broad categories – 'initial investigations by the police' – warrant further inspection, and Figure 4.2 distinguishes six sub-categories²¹:

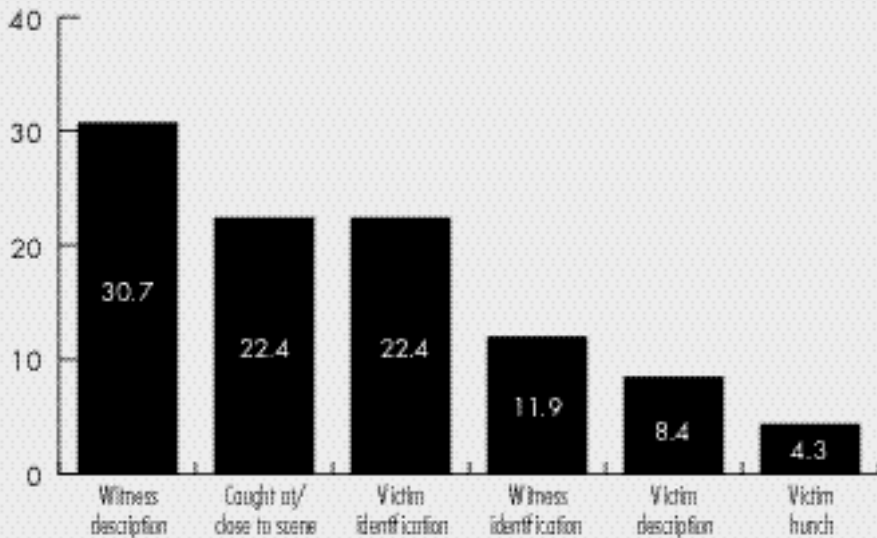
- Witness descriptions, including descriptions of motor vehicles used by suspects, constituted the largest sub-category, accounting for just under one third of the total (31%).
- Suspect caught at/close to scene by police. Just under a quarter (22%) of first links arose when the police were able to respond rapidly to reports and directly detain the suspect (this included stopping a suspect in a stolen motor vehicle).
- Victim identifications of the suspect accounted for the same proportion of first links as police apprehensions at/close to the scene: just under a quarter (22%) of the total.
- Witness identifications of the suspect accounted for 12 per cent.
- Victim descriptions, including descriptions of motor vehicles used by suspects, accounted for eight per cent of the total.
- Victim hunches – that is, where the victim provided unsubstantiated 'guesses' that led to a suspect – accounted for the remaining four per cent.

Overall, one of the striking features of this breakdown is that while initial responses do lead to suspects being 'caught red-handed' in a sizeable proportion of cases, these circumstances are dwarfed by those where victims and witnesses are present, and able to provide critical leads. Of course it begs the question – addressed later in this report – of how far a police response (rapid or otherwise) is necessary to identify and exploit these important sources.

20. The sampling process separated cases cleared up by means of being 'taken into consideration' (TIC) – the cases covered here are those where the offender was subsequently charged or cautioned (see Chapter 1). TIC detections are typically requested by offenders to offences which have been recorded, and/or which the police may have sought to attribute to them: they are examined later in this chapter.

21. In the labels below 'identification' is used to cover circumstances where a name is provided, whereas 'descriptions' cover less precise information (i.e. 'young white man, with cropped hair, wearing...').

Figure 4.2: First links arising from initial investigation by the police: direct detections of all volume crimes



Unweighted. Base = 514 cases.

While there proved to be a high measure of consistency in how ‘first links’ were established between the four types of crime under review, there were also important differences – which arguably need to be considered if investigative strategies for particular crimes are to take account of such findings. To this end Appendix 2 presents data relating to the four crime types, indicating – as above – the primary factors that first linked the suspect to the crime in the case of direct detections, and a more detailed breakdown of the ‘initial investigations’ category. The principal features revealed are that:

- burglary dwelling detections are the most dependent on ‘initial investigations’ (these accounted for 57% of first links), and least reliant on ‘general patrol activities’. As might be expected when the victim’s home has been entered (as opposed to their cars, or commercial/service buildings), direct victim identifications account for the largest sub-category within the ‘initial investigations’ group (30%);
- non-dwelling burglary detections are the least dependent on ‘initial investigations’ (albeit these still accounted for 49% of first links), the least reliant on ‘general patrol activities’ but the most dependent on ‘evidence at, or from, the scene’ (i.e. forensic clues or CCTV footage), which accounted for 36 per cent of first links. For these offences, direct victim identifications account for relatively few links

(13%) and the largest sub-category within the 'initial investigations' group proved to be 'witness descriptions' (41%);

- theft from motor vehicle detections are, like domestic burglary, heavily dependent on 'initial investigations' (these still account for 56% of first links), but are also reliant on 'general patrol activities' (12%). Here very few suspects are linked by being caught at or close to the scene (13%) and the largest sub-category within the 'initial investigations' group – and across the four crimes – proved to be 'witness descriptions' (47%); and
- theft of motor vehicle detections are dependent on 'initial investigations' (51% of first links), but share the benefits of 'general patrol activities' with theft from motor vehicle detections (accounting for 13%) and reap the highest proportion of first links from intelligence (16%). The largest sub-category within the 'initial investigations' group proves to be 'caught at or near the scene' (33%).

It is also pertinent to explore whether different BCUs have markedly different 'first link' profiles. This question has to be addressed in the context of each of the four separate volume crimes, and Appendix 3 provides the summary statistics, by BCU, for each crime. This reveals some quite marked differences: for example in the context of burglary dwelling cases, one BCU – BH – achieves just over two-thirds of its first links (67.6%) from initial investigations, whereas another – CL – only achieves just over one third (35.1%) by this means.

Activities carried out during initial scene attendance – and their payback

As Figure 4.1 indicates, the most important means by which links between offences and suspects are derived are initial investigation by the police (54%). The contribution of different activities undertaken during the initial investigation in identifying suspects is now examined in more detail.

In those cases where volume crimes received an initial police response, the cohort review exercise sought to document each of the activities carried out by the police officers. For each activity the outcome of the action was also recorded. Thus, where an area search was carried out, the research team sought to establish if a suspect was caught; identified but not caught, or yielded further evidence or information. To convey the broader picture, Table 4.1 below summarises how often different activities were carried out for each type of crime, and whether they produced any positive results (in the cases described here, the detection of a suspect or his/her identification, etc.).

Table 4.1: Key activities carried out during initial investigations and their ‘productivity’, by crime type (column percentages)

	‘Implementation ratio’: when scene attended, proportion of cases where activity carried out				‘Productivity ratio’: proportion of cases yielding a suspect or further information			
	Burglary dwelling	Burglary OTD	Theft from a MV	Theft of a MV	Burglary dwelling	Burglary OTD	Theft from a MV	Theft of a MV
Area search	20.3	7.7	14.7	32.8	47.4	46.9	81.8	63.1
House-to-house enquiries	68.5	8.2	27.1	10.3	17.7	7.3	8.9	8.8
Victim statement	14.0	28.4	59.0	69.0	38.3	16.9	19.5	26.2
Witness statement	3.3	11.2	5.5	11.3	66.8	45.4	64.4	69.1
Road check	0.3	0.0	0.1	0.2	0.0	0.0	100	100

Weighted data. N=45,811

This analysis indicates the following:

- Area searches are carried out most frequently (in 33% of cases where an initial visit was made) for theft of MV offences, and least for burglary OTD. They are most productive, however, in respect of theft from MV cases, where 82 per cent served to assist the investigation.
- House-to-house enquiries are carried out most frequently (in 69% of cases) for burglary dwelling offences, and least for burglary OTD (8%) and theft of MV (10%). They are most productive for burglary dwelling cases, where 18 per cent served to assist the investigation.
- Victim statements are taken most frequently (in 69% of cases) at attended theft of MV offences but they are most productive in respect of burglary dwelling, where 38 per cent served to assist the investigation. In some BCUs, however, such statements will only be taken in those instances when the police need to record information that will contribute to the investigation: so, in such circumstances, the link with leads will be self-fulfilling.
- Witness statements are taken less frequently, but most often for burglary OTD and theft of MV cases (in 11% of cases each), and least for burglary dwelling. They nonetheless appear to be highly productive for most types of crime, but again some BCUs treat them in the same manner as victim statements; they will often only be taken when the witness has material facts to disclose that will assist the case against a suspect.

The contribution of scene examination and forensic techniques

The second most important activity for generating first links between suspects and offences – accounting for just about a quarter (24%) of these links – is the collection of evidence at the scene. The vast majority of these links (80%) are established through the collection of forensic material.

The research drew on two sources of information about the activities of SOCOs. Data were collected by means of the cohort review: this enabled the analysis to comment on issues like the ‘mix’ of police officers and SOCOs attending crime scenes, what contact trace material was recovered and to explore interconnections between this activity and outcomes. But there were occasions when records of SOCO activities were not present on case files: a fact that perhaps implies that the activities of police and forensic examiners often continue on a ‘twin track’ basis, rather than being closely inter-related. To counter this deficiency, the research team asked Scientific Support staff in each BCU to provide summary statistics for all SOCO activities and outcomes during 2003²². While this exercise was not completed in every respect²³, it provides both a supplementary account, and also coverage of activities in relation to all four volume crime types, rather than the two offences reviewed in each BCU.

The summary statistics indicated there were huge variations in scene attendance rates, both by crime type and BCU. Table 4.2 indicates that while over 80 per cent of burglary dwelling offences received an examination by SOCOs, the proportion fell to under half of non-residential burglaries (47%), under a third of thefts of motor vehicles (30%: recognising, of course, that the ‘crime scene’ for such crimes – the vehicle itself – is not always available for inspection!) and finally to 13 per cent of thefts from motor vehicles. As well as this dimension, there were very considerable differences within each crime category:

- Domestic burglary: attendance ranged from 63 per cent (CL, DL) to 100 per cent (BH).
- Non-domestic burglary: attendance ranged from 27 per cent (CL) to 74 per cent (AL).
- Theft of motor vehicle: attendance ranged from six per cent (AH) to 65 per cent.
- Theft from motor vehicle: attendance ranged from three per cent (AH) to 33 per cent (DH).

22. Where forces could produce an exact match with the period of case tracking, this was provided.

23. Returns were provided by all eight BCUs relating to numbers of SOCO scene attendances, numbers of scenes where fingerprints and/or potential DNA stains were retrieved, and numbers of fingerprint identifications and DNA hits were achieved. In all BCUs, bar BH, data were provided for each of the four property volume crime types considered in this report: in BH it was not possible to disaggregate vehicle crime and provide separate figures for theft of and theft from motor vehicles. The analyses that follow thus relate to all eight BCUs for burglary offences, but to only seven for theft of and from motor vehicles.

Table 4.2: Recovery of contact trace material per 100 scenes attended by SOCOs, by crime type (summary statistics from BCUs)

	Burglary dwelling	Burglary OTD	Theft of MV	Theft from MV
Scenes attended	80.5	46.8	30.1	13.2
Fingerprints collected	35.9	21.5	23.3	8.3
DNA recovered	5.6	4.8	6.5	1.1

Data relate to all crime in the target BCUs, as provided by the force Scientific Support departments. [It should be noted that SSDs refer to rates of scene attendance, not to rates at which crimes have one or more scenes attended by SOCOs. In practice, for volume crimes, attendance at more than one scene for a single crime is uncommon.]

The table also indicates the substantial variation in the recovery of contact trace material. Consistent with the research evidence from other studies (see Bradbury and Feist, 2005) the data show that fingerprints were generally recovered more often than DNA, but again there was both significant inter-crime variation, and variation between BCUs. Thus while 36 per cent of scenes of burglary dwelling offences visited by SOCOs yielded fingerprints, this proportion varied between 89 per cent in DL and only 15 per cent in CL. Performance in relation to DNA tended to be less wide-ranging but was still substantial: for this same crime, 17 per cent of scenes in CH yielded DNA, but only three per cent in CL. At a general level, one pattern is apparent – the greater likelihood that, of scenes visited, thefts of motor vehicles are likely to yield both fingerprints and DNA (possibly reflecting the more targeted attendance at this crime type).

Scene attendance practices obviously have a very marked impact on the benefits obtained from forensic science. The research literature also shows that while fingerprints tend to be collected more regularly at crime scenes than DNA, the differences between the two techniques are reduced when the greater relative likelihood of DNA samples obtaining a match from the DNA database is taken into account. Table 4.3 summarises the proportion of DNA matches and fingerprint identifications eventually obtained per 100 offences for the four different volume crimes. Overall there is a broader parity between the two techniques than might have been inferred from the figures on recovery in Table 4.2, but fingerprint identifications are obtained more regularly than DNA matches for every crime type. The highest level of identifications occurs in relation to fingerprints in theft of motor vehicles cases (3.9 per 100 crimes – notwithstanding the fact that less than a third of scenes are attended), and fingerprints in burglary dwelling offences (3.7 per 100 crimes). However, even for these two offences, the summary statistics demonstrate quite marked differences in the overall benefits that each BCU derives from forensic techniques:

- In respect of burglary dwelling offences, DL obtains the most identifications: with 4.1 idents per 100 crimes from fingerprints and 4.0 from DNA. DH is the second highest performer, with 7.4 idents per 100 crimes overall, but here the balance is quite different: fingerprints provide 5.7, but DNA only 1.7.
- In respect of thefts from motor vehicles, DH and DL again outperform the other BCUs, with DH achieving fully 13.5 idents per 100 from fingerprints and 4.3 from DNA. But at the other end of the scale AH obtains only 1.9 identifications overall: with 1.0 idents per 100 crimes from fingerprints and 0.9 from DNA.

Table 4.3: DNA matches and fingerprint idents achieved per 100 offences and per 100 scenes visited, by crime type (summary statistics from BCUs)

	Burglary dwelling	Burglary OTD	Theft of MV	Theft from MV
Fingerprint idents per 100 offences	3.7	2.7	3.9	0.9
DNA matches per 100 offences	2.4	2.4	3.0	0.6
Fingerprint idents plus DNA matches per 100 scenes visited	7.9	10.9	23.5	13.5

Data relate to all crime in the target BCUs.

The first two rows of Table 4.3 summarise the overall payback the BCUs reviewed obtain from fingerprints and DNA, but the final row presents the number of identifications (fingerprint and DNA) obtained per 100 scenes visited, and indicates that attendance at theft of vehicle offences is easily the most productive. Looking at the relationship between scene attendance and the rate of getting identifications, analysis revealed that²⁴:

1. Amongst the eight BCUs included in this study, the DNA match rate was closely related to SOCO attendance rates for non-domestic burglary ($r=0.72$), and to theft of motor vehicles ($r=0.67$) and theft from motor vehicles ($r=0.50$), but this relationship was not found between the DNA match rate for domestic burglary and scene attendance rate ($r=-0.06$).
2. The pattern for fingerprints followed that for DNA, with the strongest correlation again relating to non-domestic burglary ($r=0.86$), similarly followed by theft of motor vehicles ($r=0.67$), theft from motor vehicles ($r=0.44$), but there was a negative correlation between scene attendance rates and fingerprint idents for domestic burglary ($r=-0.44$).

24. It should be noted that the overall measure shown in Table 3.11 is an indicator of overall yield across the BCUs. The correlations presented here measure the association between variations in attendance rates and variations in rates of fingerprint ident and DNA hit.

The likely explanation for this pattern is that, at the generally very high rates of SOCO scene attendance for domestic burglary (over 60% in all eight BCUs) limited additional identifications were generated by higher rates of scene attendance. At the lower average rate of attendance for non-domestic burglary, theft of motor vehicles and theft from motor vehicles, more identifications were associated with higher rates of attendance.

Overall the findings derived from this separate data gathering exercise reveal a complex picture, but of course the crucial dimension to be addressed in the context of the present enquiry is whether high-performing BCUs achieve a higher proportion of forensic matches than their low-performing counterparts. Table 4.4 summarises the combined rate of identifications achieved, with the crime types under examination in the cohort review shaded. It indicates that in only five of the sixteen paired comparisons drawn – for example, that of theft of motor vehicles in DH and DL – does the high performing BCU enjoy a higher rate of forensic identifications – hardly a sign that this is a guarantee of higher investigative performance per se. But the extent of variability between crimes and BCUs also highlights that there is room for improvement, and this issue is returned to in the latter part of the report.

Table 4.4: Fingerprint and DNA ids as a proportion of all target volume crimes (summary statistics from BCUs)

	AH	AL	BH	BL	CH	CL	DH	DL
BDW	5.9	6.0	5.5	6.5	4.6	5.3	7.4	8.1
BOTD	8.5	8.7	4.3	2.7	3.5	3.1	4.8	5.3
TFMV	0.5	0.7	0.0	1.1	4.4	1.1	1.7	1.9
TOMV	1.9	4.0	7.6	4.1	3.6	4.3	17.9	12.1

Data relate to all crime in the target BCUs.

The fact that the proportion of fingerprint and DNA identifications do not, in isolation, seem to account for differences in detection rates should not, however, suggest that such identifications are not linked to positive case outcome. Where a fingerprint identification is made, 79 per cent of cases are detected (and a further 12 per cent lead to TIC detection): the full analysis is presented in Appendix 5. A similar picture emerges in relation to DNA for cases where there was a suspect match, 92 per cent were detected (and a further 8% led to TIC detection). Indeed, in the light of concerns that over a half of DNA matches do not result in detections, because they are countered by arguments about ‘legitimate access’ (MHB,

2004), the figure in relation to DNA is extraordinarily high – and may indicate that in this instance the cohort review is presenting a rather more positive picture than really applies²⁵.

Summary

This chapter of the report seeks to establish how the first links between a suspect and a crime are established. It found the following:

- The large majority of 'first links' between a suspect and a crime appear to be associated with the initial enquiries. They comprise those where suspects are caught directly as a result of the initial police investigation (which accounted for just over a half of all direct detections) and those where the offender left some physical trace of his/her presence (which account for just under a quarter).
- Where direct detections arise, but the first links do not derive directly from initial enquiries, they occur on the basis of information that arrives later, by means of admissions during interviews, intelligence associations and 'general patrol activities'.
- Looking in more detail at direct detections derived from initial police investigations, it is evident that while initial responses do lead to suspects being 'caught red-handed' in a sizeable proportion of cases, these cases are dwarfed by those where victims and witnesses are present, and able to provide critical leads.
- There is no consistent evidence to support the assertion that BCUs which achieve a higher proportion of forensic matches also have a high detection rate: indicating that a strong forensic performance is no guarantee of higher investigative performance per se.
- However, in relation to scene examination and the use of forensic techniques, the research revealed huge variations in scene attendance rates, both by crime type and BCU: for example while over 80 per cent of burglary dwelling offences were deemed to warrant examination by SOCOs, the proportion fell to under half of non-residential burglaries, under a third for thefts of motor vehicles and to 13 per cent of thefts from motor vehicles.

25. The 'less than 50%' match to detection conversion rate is a figure that is routinely provided by police forces to the DNA Expansion programme but is generally believed to understate the true productivity of DNA matches simply because many forces do not have the ability to assemble accurate data (MHB, 2004). On the other hand the data from the cohort review is derived from case papers where the presence of identifications (fingerprint or DNA) is clearly recorded and will not account for cases where identifications occurred but never reached the OIC and case file.

- There is also substantial variation in the recovery of contact trace material and quite marked differences in the overall benefits that each BCU derives from forensic techniques.
- Both the DNA hit rate and rate of fingerprint identifications was closely related to attendance rates for non-domestic burglary, to theft of motor vehicles and to theft from motor vehicles, but the rate of identifications for domestic burglary was not positively related to scene attendance rates for either. The likely explanation is that, at the generally very high rates of scene attendance for domestic burglary, there are no marginal benefits, in terms of detections, in higher rates of attendance. However, it is widely assumed that burglary victims will be reassured when scene examinations are carried out.

Linking an offender to a crime is clearly only the first stage in achieving a successful detection. This section explores the information that is critical in achieving detections and looks more generally at the case characteristics of detected volume crimes. It also examines the characteristics of offences and investigative outputs which help predict the likelihood of detecting an offence.

The principal information enabling the offence to be detected

Having reviewed the full information available on each case, the research team sought to supplement their assessment of the 'first links' between suspect and the offence by identifying the principal information that enabled the case to be detected (the distinction is made under 'How crimes are detected' in Chapter 4). There are two issues that arise from this assessment.

Firstly, it is recognised that this categorisation (like that about 'first links') is reliant on the judgement of a third party, based on a retrospective review of case papers, and that this might differ from those with more direct experience at the time²⁶.

Secondly, it also has to be recognised that, in a high proportion of cases, there may be far more than one factor at play. For example, the information that led to charges being laid may comprise a combination of a suspect being spotted close to the scene, being stopped in a vehicle (but with others) containing stolen property and/or incriminating evidence from an interview with another party.

The case described below illustrates both of these issues.

Case B2-339. This residential burglary was reported to the police by a neighbour. The witness had glimpsed the offender and believed it was an acquaintance of the injured party's son. This suspect was found to have previous convictions. However, this identification was not sufficiently positive to make an arrest. Further enquiries provided

26. An approach that can be applied is to ask the 'officer in the case' (OIC) to summarise the leads and weight them according to their importance, as in Burrows et al., 2005: but this approach is highly time consuming, for police and researcher, and is itself not totally reliable – it is possible that officer's supervisor, or a prosecutor, might provide a different ranking.

local intelligence that the same suspect had been seen with property that seemed to be similar to that involved in the burglary, but this could not be substantiated. Forensic examination of the scene did, however, reveal fingerprints in the burgled house and these were checked against those of the suspect, and found to match. He was arrested, charged and convicted.

It is clear in this case that the 'first link' to the offender was the witness identification. However, neither that lead, nor the second (the intelligence report) were sufficient to charge the suspect. It was clearly the fingerprint evidence that led to the decision to charge and therefore secured the detection. The original witness statement was part of the case papers that went forward to trial but it is not clear whether the combination of the witness identification and the forensic evidence was necessary for the conviction, or whether the case could have been built from the fingerprint alone (had there been no witness). There was therefore a judgement to be made by the researcher, and the implication was drawn that two lines of enquiry were needed to obtain the charge and subsequent conviction.

This approach of distinguishing between 'first links' and 'principal evidence leading to the detection' seeks to redress the widespread assumption that most volume crime cases are 'solved' with one lead which forms a single direct path along which the investigation ran.

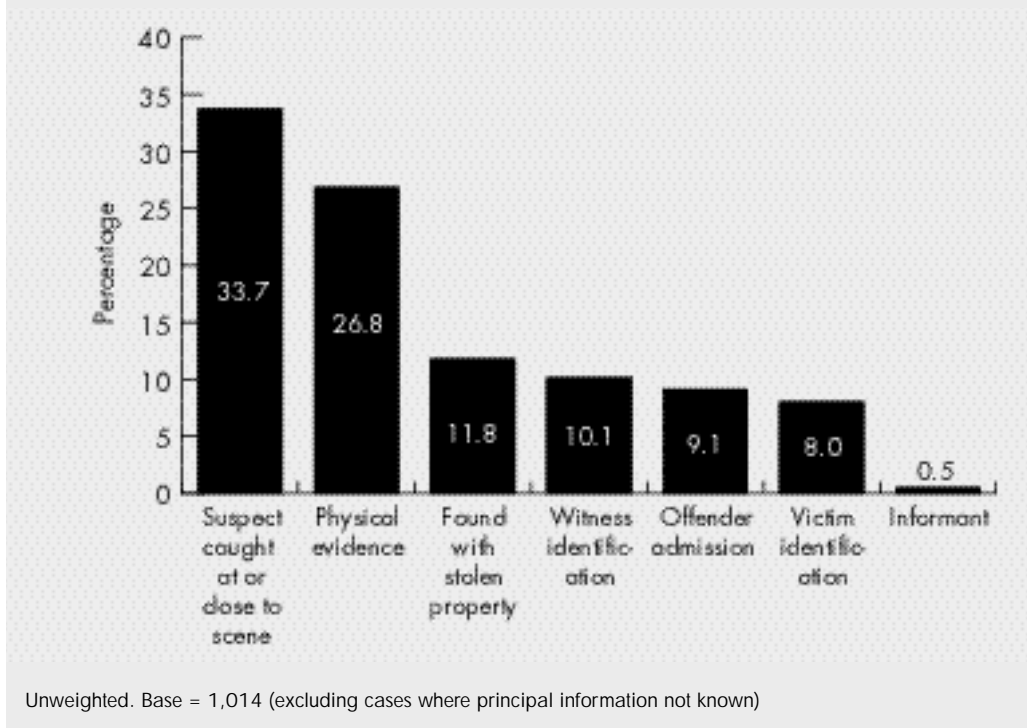
Figure 5.1 presents the principal information that was believed to have enabled a case to be detected: for the purpose of comparison with Figure 4.1, it is restricted to direct detections.

This figure indicates that there are many similarities with the 'first links' assessment, as would be expected. The three categories of 'suspect caught close to/at the scene', 'witness' and 'victim identification' account for half of the total, and these three categories are broadly consistent with 'initial investigation by the police' (which in Figure 3.1 accounted for 55% of first links). Just over a quarter of detections are attributed to physical evidence (which, for the purpose of this analysis excluded CCTV), which indicates that such evidence makes an even greater contribution to building a case than it does in providing the first link to a suspect²⁷. Two sources of information appear much more important: admissions made by suspects (9%)²⁸, and the fact they are found with stolen goods (12%). Information from informants very rarely provides the principal information, despite the importance attached to this source by 'Tackling crime effectively' (ACPO, 1995) and other guidance.

27. It is also noted elsewhere that this contribution is much higher than suggested by studies carried out prior to the establishment of NAFIS and the combined effect of establishing the National DNA Database and the DNA Expansion Programme.

28. These are admissions during interview for the offence being investigated.

Figure 5.1: The principal information enabling the offence to be detected: direct detections of all volume crimes



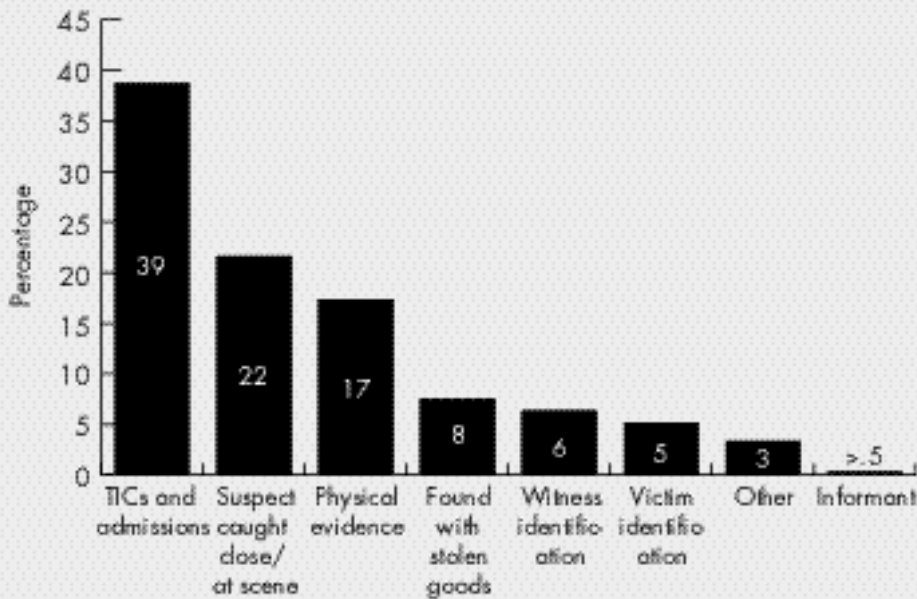
The high degree of consistency between the information generating first links and that generating detections should not, however, give rise to the automatic assumption that – in the majority of cases – only one factor has dominance. Comparison of the ‘first links’ in the case and the ‘principal information for detection’ indicate that there can be subtle differences between the different factors. For example:

- 1) In that subset of cases where the first link to the offender was made through the initial investigation, the main evidence used to secure the detection was that the offender was caught at or close to the scene (50%) and through victim or witness identifications (28%). However, in a further eight per cent of cases the main evidence used was the fact that offender was eventually found with stolen goods and another six per cent relied on the use of physical evidence.
- 2) In 84 per cent of cases where the first link to the offender was made through evidence found at, or from the scene, physical evidence was the main evidence used to detect the crime. However, in a further seven per cent of cases offender admissions provided the principal evidence securing detection.

- 3) In 39 per cent of cases where police intelligence was the first link to the offender, the fact that offenders were found with stolen goods was the main evidence that led to detection. In a further 21 per cent of these cases physical evidence was used as the main evidence and 20 per cent were detected through admissions.

The earlier analysis of first links excluded TICs on the simple basis that TICs can only be obtained from suspects already known. Any comprehensive assessment of ‘key information for detection’ should, however, take into account the very significant contribution from TICs in volume crimes. For comparability with earlier analyses, Figure 5.1 excluded TICs: Figure 5.2 represents the full span of ‘key information’ for all detections, direct and indirect. It indicates that TICs and admissions account for nearly four in ten detections overall (39%). Obviously, with the inclusion of TICs, all other forms of principal information account for a proportionately smaller share of the ‘detection cake’.

Figure 5.2: The principal information enabling the offence to be detected: all detections (direct and indirect) of volume crime



Unweighted. Base = 1,484

Case characteristics associated with detections

Although there may be a temptation to assume that all burglary and vehicle crime share similar case characteristics, the profile of cases across the eight BCUs of course varied in a variety of respects. Some of these characteristics are likely to have an important influence on

the ease, or manner, with which offences can be detected. Two particular case characteristics were explored in detail: offender/victim relationship and timeliness. These issues were selected on the grounds that the existing literature indicates that they appear to make an important contribution to 'detectability'.

Cases where victim knew the offender

Not all burglary and vehicle crime offences are 'stranger crimes' and in order to probe how far these cases might be committed by family, friends or acquaintances the research team noted, for each detected case reviewed, whether there was a relationship of any sort between the victim and offender. This revealed that:

- for domestic burglary, in nearly one in five (19.3%) detected cases the offender was known to the victim: the figures ranged from 30.9 per cent in BH to 6.4 per cent in AH;
- for non-domestic burglary: the figure was much lower, at 3.7 per cent (albeit this crime was only examined in AH and AL, both inner city BCUs);
- for theft from motor vehicle: the figure was again low, at 2.7 per cent overall, ranging from 7.4 per cent (BL) to none (DL); and
- for theft of motor vehicle: the figures were higher – at 7.9 per cent across all BCUs and ranged from 12.8 per cent in CL to 5.3 per cent in CH.

Given the nature of these different crimes, and the different profiles of the BCUs in which they were committed,²⁹ this pattern is not surprising. Indeed it is the fact that victims already know a significant proportion of offenders that largely explains the high proportion of 'first links' that are derived from victim identifications or victim hunches. It might indeed also explain the way so many 'first links' are derived from 'witness identifications'.³⁰ Put together, in nearly two-thirds (64.7%) of the cases where the first links were derived by these three means, there was a prior relationship of some sort. But on the other side of the coin, in the remaining one third of cases (35.6%) where first links were derived by other means – say by the offender being caught close to the scene – there was a possibility that, had the suspect not been identified by these means, through the police probing the feasibility of the offence being committed by someone known to the victim a link to the suspect might have been made.

29. The overall proportion of detected cases where the victim knew the offenders was as follows: AH, 3.2%; AL, 11.3%; BH, 14.4%; BL, 12.6%; CH, 9.7%; CL, 10.1%; DH, 3.5%; DL, 2.2%. As well as the wide overall range, it will be noted that – within the paired BCUs – the greatest difference occurred in relation to AH and AL.

30. The data collection instrument did not explore if witnesses had any prior relationship with offenders. But it is not unreasonable to imply that as many witnesses will know victims (for example, in the case of domestic burglary, may be neighbours acting on their behalf), they might also know the victims' family, friends or acquaintances.

The impact of timeliness

The impact of the speed of police response on detection rates has been shown by previous research to be dependent upon a complex interplay between the victim/witness reporting of an incident and the police response. Jansson (2005) summarises the lessons from previous research in these terms:

The main factor determining whether an offender is apprehended at the scene is the length of time between the crime being committed and reported. Crimes that are reported in progress and responded to without a delay are associated with much higher chances of detection. However, reflecting the context specific nature of investigative actions, speed of police response is only important in this subset of crimes. Whether crimes are reported without a delay is highly dependent on victims and witnesses. (Jansson, 2005)

The cohort review sought to take this work further by separating out four crucial time windows. These are presented below in schematic form:

‘Victim opportunity’ time – that is the scope that the victims (and witnesses) have to help the police/detain a suspect by reporting quickly.		‘Police opportunity’ time – that is the scope that the police have to detain a suspect by identifying reports of crimes ‘in progress’ and responding rapidly.	
Component 1	Component 2	Component 3	Component 4
The time window in which the offence is committed ³¹	The time between discovery and report	The time between report and dispatch	The time between despatch and arrival

The analysis carried out using these distinctions shows, in various ways, the importance of timeliness. Table 5.1 shows that, where the time of offence commission is known with some precision, the chances that it will be detected directly increase substantially³². The final column indicates that, of all those reported offences whose time of commission was known within a window of four minutes or less, 13.3 per cent were detected directly, whilst of those where the known time window was an hour or more the rate of direct detection went down to only 4.9 per cent. Patterns are less consistent by crime type, particularly for BOTD and TFMV. Nevertheless, in all cases where the time of commission is not known to within one hour the rate of direct detection becomes much lower than if it is known to within less than five minutes.

31. Component 1 can be used as a proxy for whether the crime has been committed recently, or some time before. In many instances neither the victim, nor police, will know the exact time it was committed.

32. A number of these will encompass the sorts of cases described earlier: for example where the offender was witnessed at the scene.

Table 5.1: Direct detections per 100 offences with differing known time windows of offence commission

	BDW	BOTD	TOMV	TFMV	All
0-4 minutes	13.0	12.9	22.6	19.3	13.3
5-10 minutes	5.1	19.2	41.2	9.7	8.7
11-60 minutes	6.5	15.7	7.8	5.4	6.5
Over 1 hour	6.4	5.3	5.9	2.3	4.9
Total	7.0	6.4	7.2	3.5	5.9

Weighted. Base = 42,860 (but limited by the number of cases that provided time data)

Moving on to the next component of 'victim opportunity' time, Table 5.2 shows that the speed with which the public report crimes having discovered them is quite closely associated with rates of direct detection. The final column indicates that, of all offences where the time between offence discovery and offence report was four minutes or less, 10.7 per cent were directly detected, and of those where the time was five to ten minutes seven per cent were directly detected. In contrast, where the time gap was 11-60 minutes, just 4.9 per cent were directly detected with the figure falling to 4.3 per cent where the time exceeded an hour. Similar patterns are found for each individual crime type.

Table 5.2: Direct detections per 100 offences with differing known time gaps between offence discovery and report

	BDW	BOTD	TOMV	TFMV	All
0-4 minutes	10.5	15.2	11.0	9.8	10.7
5-10 minutes	7.1	19.0	7.3	4.6	7.0
11-60 minutes	6.4	4.6	7.1	1.6	4.9
Over 1 hour	5.9	5.1	5.3	2.0	4.3
Total	7.3	8.7	7.5	3.5	6.2

Weighted. Base = 42,860 (but limited by the number of cases that provided time data)

Then, looking at 'police opportunity' time overall, Table 5.3 shows that, for all volume crime types, direct detection rates increase steeply as the time between offence report and officer arrival at the scene declines. For all crime types combined, at ten minutes or less, rates of direct detection more than doubled. Looking again at the final column, of all cases where the time between crime report and police arrival was four minutes or less, 18.7 per cent were directly detected, with figures falling as time gaps increase till only 4.6 per cent were directly detected where the time gap exceeded an hour. The same broad pattern can be seen for each individual crime type.

Table 5.3: Direct detections per 100 offences with differing known time gaps between offence report and police officer arrival at scene, where officer attended

	BDW	BOTD	TOMV	TFMV	All
0-4 minutes	14.1	29.8	30.5	16.7	18.7
5-10 minutes	12.8	17.2	32.0	12.7	14.2
11-60 minutes	6.3	6.4	19.0	4.7	6.5
Over 1 hour	4.2	3.4	13.1	4.0	4.6
Total	6.3	7.7	19.7	6.6	7.2

Weighted. Base = 42,860 (but limited by the number of cases that provided time data)

Further confirmation of the importance of time considerations can be found by separating those offences where the total ‘victim opportunity’ time (that is, components 1 and 2 above) is under ten minutes and the total ‘police opportunity’ time (components 3 and 4), too, is less than ten minutes. While there are differences between crime types, a high proportion of these cases with narrower time opportunities are directly detected:

- 18 per cent of burglary dwelling cases are directly detected, compared with seven per cent across the whole (weighted) sample (n=1,677).
- 60 per cent of non-dwelling burglary cases are directly detected, compared to the whole sample eight per cent (n=207).
- All (100%) theft from motor vehicles cases are detected, compared to the whole sample four per cent (n=541).
- 66 per cent of theft of motor vehicles cases are detected, compared to the whole sample eight per cent. (n=571).

Timeliness not only influences the rates of direct detection – it is also associated with the ways in which detections are achieved. An analysis of the timeliness in relation to speed to report and speed of officer arrival at the scene was run against a generic open-ended question in the survey proforma where the research team described how detected cases were solved³³. Tables 5.4 and 5.5 present the results.

33. This is a slightly different approach to the ‘first links’ or ‘principal information’ discussed earlier.

Table 5.4: Time between offence discovery and report by method of detection, for direct detections (column percentages)

	0-4 mins	5-10 mins	11 mins - 1 hour	Over one hour	Total
Forensic activity	10	18	27	23	20
Suspect caught close to scene	31	13	10	12	17
Victim/witness described suspect	22	14	8	6	12
Suspect known to victim/witness	7	6	11	11	9
Victim/witness identified suspect	7	6	7	10	8
Link to other offences	4	11	8	6	6
Suspect traced through stolen goods	2	4	7	8	6
Stopped in possession of stolen goods	5	8	7	4	6
Random Police Patrol	6	5	3	4	4
CCTV	2	1	1	5	2
Other	5	14	11	11	9
TOTAL	100	100	100	100	100

Weighted. Base = 2,269.

Both tables make it clear that at short time periods a higher proportion of cases can be resolved by suspect apprehension at the scene, police patrols and stops, and victims' or witnesses' offender descriptions. In contrast, forensics account for a higher proportion of detections with longer time periods (and the contribution of forensic information has a 'durability' that other information often does not possess), alongside information on suspects from victims and witnesses, or where the victim knows the suspect.

Clearly time is important. Yet different factors will impact on the various time components. The known time of an offence is largely a matter of luck (though alarms may sometimes help identify the time of an offence). The time taken to report an offence is a matter of public behaviour. The time taken for an officer to attend is a function of police organisation and practice and competing demands.

This prompts the question of whether higher performing BCUs gain some advantage over their poorer performing counterparts by either having offences discovered in a narrower time window, or because victims/witnesses report them more rapidly. This issue can be examined from a range of perspectives. At a broad level it may be that BCUs with high detection rates simply experience more offences that are reported to be 'in progress'. There is, however, no evidence to support this:

- In BCUs with high direct detection rates some 17.7 per cent of offences were believed to be 'in progress' when they were reported. The proportion of such cases in BCUs with low direct detection rates was slightly higher, at 21.2 per cent.
- In BCUs with high detection rates some 76.1 per cent of these cases were directly detected, but 81.5 per cent were directly detected in BCUs with low detection rates.

Table 5.5: Time between offence report and officer arrival by method of detection for direct detections (column percentage)

	0-4 mins	5-10 mins	11 mins - 1 hour	Over one hour	Total
Forensic activity	7	10	23	27	20
Suspect caught close to scene	29	39	14	10	20
Victim/witness described suspect	21	24	14	5	14
Suspect known to victim/witness	0	3	11	14	9
Victim/witness identified suspect	0	8	10	10	9
Link to other offences	4	4	6	11	7
Stopped in possession of stolen goods	11	2	4	3	4
Suspect traced through stolen goods	0	3	4	3	3
Random Police Patrol	19	1	3	1	3
CCTV	5	2	3	3	3
Other	4	3	7	13	8
TOTAL	100	100	100	100	100

Weighted. Base = 1,885.

Adopting another perspective, Table 5.6 presents the proportion of cases discovered in over, and under, ten minutes in each BCU, and – within each group – the percentage that were reported in over, and under ten minutes. The general picture that emerges is that the higher performing BCUs do not seem to gain any advantage on either count.

A more comprehensive analysis to evaluate whether higher performing BCUs gain some advantage over their poorer performing counterparts not only by having offences reported to them more rapidly, but also by the police being more timely in their response to those calls that warrant it, is presented in Appendix 4. It indicates that there is no consistent evidence to support these contentions. The analysis carried out however shows:

- that the proportion of cases where offences meet quite narrow ‘victim opportunity’ time bands – which were defined as those offences committed in a time band of ten minutes or less, and which were then reported to the police within ten minutes or less – is relatively small: this occurs in only 10.7 per cent of burglary dwelling cases (the highest frequency amongst the four crime types) and falls to just five per cent for non-dwelling burglaries; and
- the police are able to respond to between a third and a half of such cases – from 38 per cent of burglary dwelling cases to 57 per cent of thefts from motor vehicles – in ten minutes or less.

Table 5.6: Comparison of the time window in which the offence is committed and time reported, by BCU (per cent)

	AH	AL	BH	BL	CH	CL	DH	DL	ALL
Offence discovered in 10 minutes									
% reported in									
10 minutes	54	84	47	52	63	66	41	58	58
% reported over									
10 minutes	46	16	53	48	37	33	59	42	42
Offence discovered over 10 minutes									
% reported in									
minutes	20	30	10	30	19	32	26	23	23
% reported over									
10 minutes	80	70	90	70	81	68	74	76	76

Weighted. Base= 2,421 cases

Comparing activities carried out in detected and undetected cases

Where crime scenes do warrant police or SOCO attendance – either because they offer some leads or because of policy directives – an obvious question is whether those eventually filed as ‘detected’ or ‘undetected’ can be distinguished by the type of activities that are carried out. Is there, for example, evidence that the police conduct more comprehensive enquiries in the case of the former?

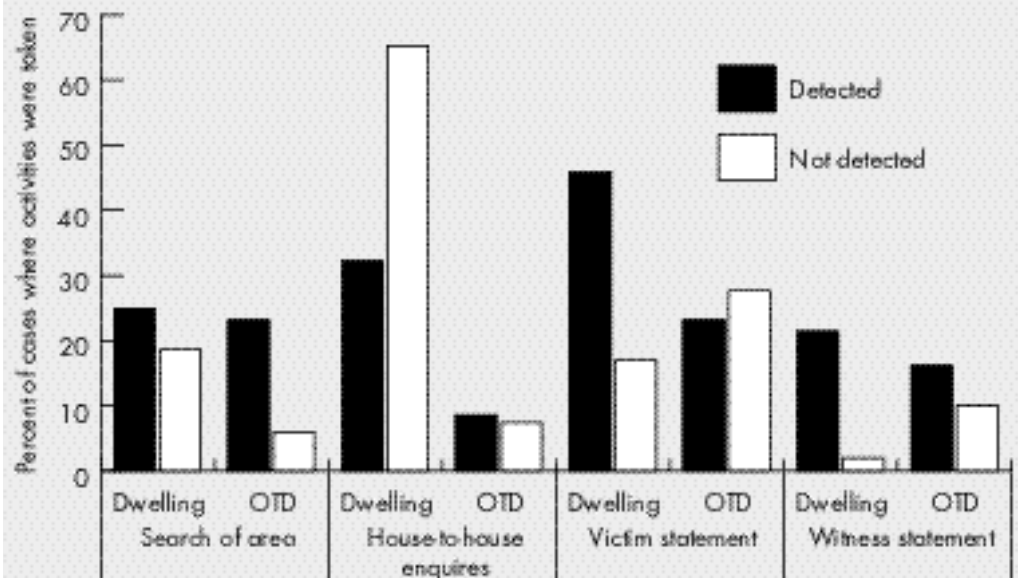
There may be an analytical problem here, however, which others have alluded to: the presence of actions in detected cases could be a function of the context of the crime, rather than a reflection of the value of a particular technique in isolation. Conversely, the absence of what might be considered productive actions in an investigation might, nonetheless, represent effective decision-making. For example, there would be minimal investigative

value in conducting a detailed area search for a volume crime offence which was reported, on return from holiday, weeks after it had happened.

Figure 5.3 compares four main activities carried out at directly detected and undetected burglary crime scenes: two of these activities – area searches and house to house enquiries – relate primarily to eliciting information, while the other two – relating to the taking of statements from victims and other witnesses – are primarily a means of recording information once it has been found.

Figure 5.3: Key activities undertaken in directly detected and undetected cases of burglary

Percentage of cases where activities were carried out



Unweighted sample, directly detected n=1,038; undetected n=1,509

The figure presents a quite complex picture. Area searches are carried out more frequently in relation to directly detected cases, for both types of burglary. On the other hand, house-to-house enquiries are carried out much more frequently in relation to undetected burglary dwelling incidents (65%) than directly detected cases (32%) – perhaps reflecting the fact that police officers have to broaden the scope of their enquiries to find any clues (there is little difference in the case of non-dwelling burglaries³⁴). Victim and witness statements are

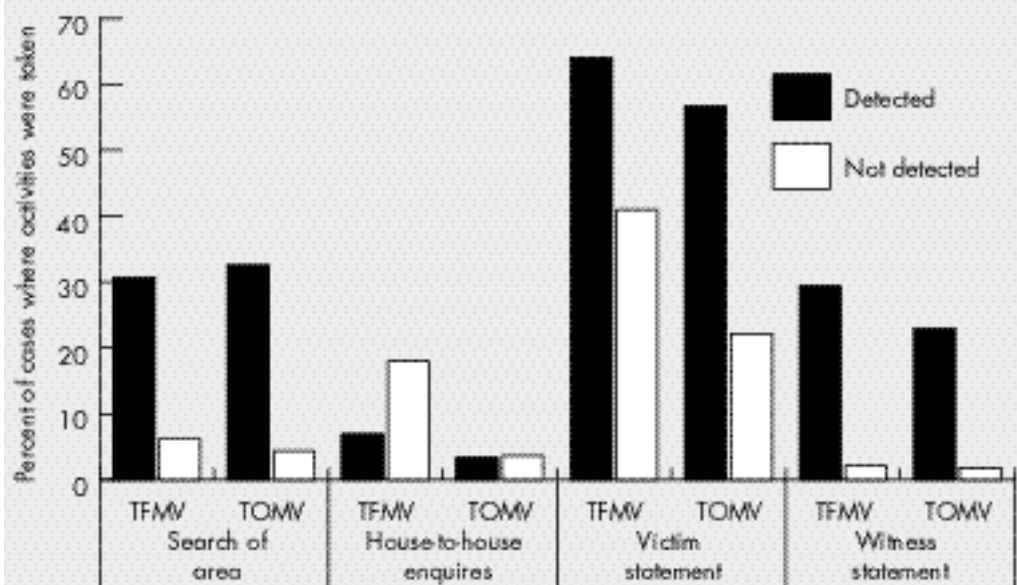
34. It may be that 'house to house' enquiries are not possible in relation to burglaries at many business premises.

taken more frequently in relation to detected burglary dwelling cases and this applies, too, to the taking of witness statements in detected non-dwelling burglaries (in many BCUs it is the practice to restrict the formal taking of victim and witness statements to detected cases). Victim statements are taken less frequently in relation to detected non-dwelling burglaries.

Figure 5.4 compares the main activities carried out at directly detected and undetected vehicle crime scenes. Area searches are generally conducted more frequently than in burglary cases and, as with burglary, they are carried out more frequently in directly detected cases, for both types. Again, house-to-house enquiries are carried out more frequently in relation to undetected incidents (18%) than detected cases (7%) of theft from motor vehicles (with little difference for thefts of vehicles). And, in this case, victim and witness statements are taken more frequently in relation to detected cases for both types of theft, almost certainly reflecting the practice to restrict the formal taking of victim and witness statements only to detected cases.

Figure 5.4: Key activities undertaken in directly detected and undetected cases of vehicle crime

Percentage of cases where activities were carried out



Unweighted sample, directly detected n=1,038; undetected n=1,509

Overall this analysis provides little consistent support for the contention that the police do not carry out key activities as regularly at undetected cases as they do in directly detected cases. But the comparison is not straightforward. The activities the police carry out are based around the circumstances: house-to-house enquiries may be conducted more frequently in undetected cases because there is no other information to assist with the enquiry. Moreover, as indicated above, there are qualitative differences between 'searching activities' and 'statement taking': it is evident that the decision to take statements from victims and witnesses is itself sometimes dependent on whether the case is recorded as 'detected' or 'undetected'.

Identifying case characteristics linked to detection

The commentary in this section has, thus far, looked at factors associated with detected cases from a variety of perspectives: the information that helps secure detections, the victim-offender relationship within detected cases, time considerations, and actions carried out at the scene. An important question to pose is, however, whether it is possible to identify the characteristics of cases which – after the initial investigation – affect the probability of detection being achieved? The analysis had to go through various stages to address this issue, and these are described below.

Cases that go forward to detection

The characteristics of cases had to be investigated for each offence type separately, as detection rates vary considerably between offences (even though the analysis is likely to find that the factors affecting detection are similar for different types of volume crime).

Identifying key influences on detection

The first step in the analysis involved identifying different 'families' of case characteristics likely to have some bearing on the likelihood of detection, and then establishing if cases with these attributes had higher than average detections rates.

An initial target was to explore to what extent particular attributes of the investigation relate to the probability of the case resulting in a detection. Unfortunately police actions are difficult to assess independently because such actions are so influenced by offence characteristics. A feature of the investigation, such as an immediate and well-resourced response, may be related to an increased chance of detection – but the fast and well-

resourced response is itself a reaction to the initial report that was called in. This targeting of the investigation characteristics will also counteract any policy benefit that could be derived from analysis of the investigation. For example SOCO attendance would very probably be associated with an increased probability of detections, but the probability of whether a SOCO gets directed to, or decides to attend a crime scene, is influenced by whether there is good potential for gaining evidence. So if the association found in the data were used to argue for sending a SOCO to attend more scenes, this policy decision may do no more than increase costs.

Consequently the majority of the characteristics that can be assessed for an impact on the probability of detection are going to relate to the evidence available in the case or characteristics associated with the likelihood of evidence. From the existing literature, case factors of this kind that could be associated with an increased chance of detection³⁵ are:

- Being reported in progress (increasing not only the probability of offenders being caught red-handed, but also of there being witnesses available and/or evidence that can be preserved).
- Having a suspect detained at or near the scene.
- Having a suspect name provided by the caller or the victim, someone contacted through a house-to-house enquiry or from a witness.
- Having other leads (description, offender's vehicle description, possible suspect suggested).
- Having potential forensic or CCTV evidence.

It is also possible that other characteristics of the case may lead to it being seen as more serious, and therefore deserving of more investigative effort. The characteristics of the victim may be a material factor: for example, many forces have policies that prioritise a response to vulnerable victims, particularly the elderly. Even if the primary purpose here is to provide victim reassurance it may still increase detections. The victim characteristics that may be associated with increased detection are:

- age;
- ethnicity; and
- sex of the victim.

35. As part of the preliminary analysis an attempt was made to investigate the impact of the increased opportunity for preservation of evidence and effective house-to-house enquires that might arise from cases where the offence was noticed by the victim relatively soon after it occurred – but to investigate this effect as a separate factor from the offence being discovered in progress. To obtain sufficient cases, and yet not be dominated by cases detected in progress, the time window was set at 24 hours. This attempt did not identify a separate factor that influenced the results.

The other factor that may lead to a case being seen as more serious is the value of the loss. Higher value losses may receive more priority responses, and higher value goods may also increase the chance of detection by being easier to identify.

Factors associated with the offender may also influence the amount of effort that goes in to getting a detection, but consideration of these issues is not appropriate at this stage because at the end of the initial investigation very few cases have a suspect. To introduce offender characteristics into the analysis would allow it to be dominated by the fact that there was an offender, in effect reproducing the effect of being caught at the scene.

Assessing the impact of case characteristics

The overall proportion of cases resulting in a detection can also be represented as 'the probability of a detection'. The detection rates (direct detections aggregated for all BCUs), which served as the benchmark for subsequent analysis, were:

- Burglary dwelling cases – 6.5 per cent of all recorded offences of this type.
- Burglary other than dwelling cases – 8.8 per cent.
- Theft from motor vehicle cases – 4.4 per cent.
- Theft of motor vehicle cases – 8.1 per cent.

Any characteristic of the case that showed a greater proportion of detection than these figures represented a characteristic with an increased probability of detection. This acted as an initial test of the characteristic as a predictor of ultimate detection.

The proportion of cases resulting in a detection for cases with each of the evidence or potential evidence characteristics discussed above is shown in Table 5.7.³⁶ For all the factors considered the probability of detection proved to be higher for cases with the characteristic than it was for the base data. The range of differences in the proportion detected for cases with each characteristic (and therefore the strength of the link that can be inferred between the characteristic and detection) varies considerably. For burglary in a dwelling the range is from the detection of ten per cent of cases that had potential leads (from descriptions or details of the offenders' vehicles) to the detection of 88 per cent of cases where an offender was caught at the scene.

36. The analysis required detected and undetected cases to be included in their correct proportions, so weighted data were used. However, this means that the analysis will be influenced to a greater extent by BCUs with more offences.

Theft of motor vehicles has higher proportions of detections from most of the case characteristics. This relates in part to the fact that there are very many fewer cases of this type of offence that have this characteristic. (For example, for forensic evidence to be obtained requires the vehicle to have been found.) However comparisons between offences are not going to be very reliable because different BCUs with different levels of success at gaining detections are included.

Table 5.7: Influence of case characteristics on detection rates

Proportion of cases (by offence type) with given characteristic resulting in non-TIC detection

Type of crime	Potential leads from descriptions, offender's vehicle, etc.	Forensic info obtained by SOCO for this case	Reported in progress	Suspect name obtained from caller witness, or IP, or CCTV (not from being caught at scene)	Offender caught at the scene	Benchmark (overall proportion resulting in non-TIC detection)
BDW	9.9	10.0	17.0	39.3	87.9	6.5
BOTD	Not significant*	20.5	30.5	59.4	100.0	8.8
TFMV	6.2	20.6	22.5	31.3	84.6	4.4
TOMV	20.7	50.8	35.3	79.7	86.1	8.1

Weighted data. N=42,632. (*Fisher exact test 2-sided worse than .01)

In contrast, victim characteristics do not make much difference. As can be seen from Table 5.8, many of the percentages were not significantly different from those without the characteristic and, where they were, the difference was small.

Further investigation showed that using the number of leads which did not give a specific name (leads that gave a description or details of an offender's vehicle), was generally a better predictor of detection than just whether there was a lead or not. Table 5.9 shows the percentage of cases leading to detection for cases with one, two, or three leads. Although the pattern is not maintained for thefts from motor vehicles, in general, the higher the number of leads the greater the chance of a detection.

Table 5.8: Influence of victim factors on detection rates

Proportion of cases (by offence type) with given characteristic resulting in a non-TIC detection

Type of crime	Female victim	High Value: £1,541 or over (BDW, BOTD & TFMV) £5,501 or over (TOMV)	Victim aged over 55	Victim belonged to ethnic minority group	Benchmark (overall proportion resulting in non-TIC detection)
BDW	6.1	Not significant*	8.1	Not significant*	6.5
BOTD	3.3	Not significant*	Not significant**	Not significant*	8.8
TFMV	Not significant**	Not significant*	4.6	Not significant*	4.4
TOMV	10.5	Not significant*	6.3	Not significant*	8.1

Weighted data. N=42,632. (*Fisher exact test 2-sided worse than .01, **Chi-square worse than .01)

Table 5.9: The influence of multiple leads on detection rates

Proportion of cases (by offence type) with different numbers of leads that resulted in a non-TIC detection

Type of crime	One 'no name' lead	Two 'no name' leads	Three 'no name' leads
BDW	6.9	17.4	55.3
BOTD	Not significant**		
TFMV	12.4	45.1	34.9
TOMV	6.3	36.6	52.1

Weighted data. N = 849 weighted. (**Chi-square worse than .01)

The effect becomes more pronounced when different sources by which a name could be obtained are combined. Table 5.10 shows the percentage of cases resulting in a detection for groups representing the number of leads giving a name or potentially linking to a name via forensic evidence. The categories included are the caller giving a name, the victim or witness statement giving a name, house-to-house enquiries giving a name, CCTV giving a suspect identity, and potential forensic evidence from property or the scene. Each of these different fields is treated as a separate addition to the total. As with the description leads, this table shows that the higher the number of leads providing names, the greater the

probability of detection. (Of course there are very few cases with a high number of leads from different sources.)

Table 5.10: The influence of multiple leads with names on detection rates

Proportion of cases (by offence type) with different numbers of leads to names that resulted in a non-TIC detection

Type of crime	One lead giving a name	Two leads giving a name	Three leads giving a name
BDW	8.9	35.1	63.1
BOTD	11.4	43.8	78.0
TFMV	21.6	62.1	83.7
TOMV	41.2	73.6	91.1

Weighted data. N = 1,885 weighted.

This should not be a surprising finding. Corroboration of evidence is ultimately recognised to be the key to a good case for court. A single piece of evidence, for example a fingerprint, could seem damning at the time but anecdotal evidence from front-line officers suggests that it is vulnerable to a 'creative' story from the suspect. A second piece of evidence makes a credible 'creative' explanation more difficult to find.

Developing a model of influences on detection

The relationships between factors can be investigated further by using a multivariate model . Four separate models were constructed, one for each offence type, each starting with the same factors (which the previous analysis showed were related to detection):

- 1) Reported in progress (Y/N)
- 2) Was an offender caught at the scene (Y/N)
- 3) Number of sources giving a lead to a name (caller, witness, IP or CCTV)
- 4) Number of other potential leads (descriptions, offender vehicle details)
- 5) Number of types of forensic material available (fingerprints, shoe marks, DNA, glass or fibre from scene or property recovered)

It was found that there was not sufficient data to build a model of detection for burglary other than dwelling in which the key measures were statistically significant, and this model

37. A logistic regression model was used to enable statements to be made about each of the explanatory variables and their impact on the predicted variables.

was abandoned. Additionally, the factor 'reported in progress' did not make a significant contribution to any of the models and was therefore removed.

The results are summarised in Table 5.11. The Exp(B) figures show the relative impact of each factor in achieving a detection: they represent the increase in the odds of detection for each occurrence of the factor. Clearly, when considered together, whether an offender was caught at the scene is the factor that has the greatest impact, and by a wide margin. While this does highlight the potential investigative value of getting quickly to the scene of in progress offences, the small proportion of offences with this characteristic indicate the rather limited potential to generate additional detections. Of the three crime types, forensic evidence increases the odds of detection most for vehicle crime, although – for burglary dwelling cases – sources of information giving a name have more impact. 'Other potential leads' have a lesser impact than the other factors, although they have more impact on the odds of detection for theft of motor vehicle offences than burglary dwelling or theft from motor vehicles.

Table 5.11: Multivariate (binary logistic regression) model of detection

Factor	BDW	TFMV	TOMV	Cases with this characteristic (per cent)
Was an offender caught at the scene (Y/N)	184.4	207.4	75.4	2.4
Number of sources giving a name (caller, witness, IP or CCTV)	5.0	3.5	8.0	2.8
Number of types of forensic material available (fingerprints, shoe marks, DNA, glass or fibre from scene or property recovered)	2.5	5.2	8.0	17.4
Number of other potential leads (descriptions, offender vehicle details)	1.4	1.4	4.6	20.8
R2 Overall measure of model performance (range: from zero, no explanation, to one, fully explains outcome) ³⁸	.353	.406	.526	

Weighted data. N= 42,632

38. This is the Nagelkerke 'pseudo' R2 measure of the amount of variance explained by the mode.

Of course the finding that one set of factors accounts for a large degree of variance also needs to consider how frequently that set of factors is present: this information is provided in the final column.

For each type of offence the summary table below the factors gives an R2 measure of the amount of variance explained by the model. The R2 measure is much higher for motor vehicle crimes than for burglary – in other words the probability of detection is less well explained for burglary by the factors tested here. This possibly reflects the additional effort put into continued investigation of burglary offences beyond the leads at the initial stage.

Summary

- Looking at direct detections alone, the principal information enabling the offence to be detected was 'suspect caught close/at scene' and physical evidence. These two categories accounted for 34 per cent and 27 per cent of direct detections, respectively.
- There is quite a high degree of consistency between 'first links' and the principal information that was believed to have enabled a case to be detected, but this should not give rise to the automatic assumption that – in the majority of cases – only one factor predominates. Factors that figure particularly highly in 'building a case' include physical evidence, the offender being found with stolen goods, and admissions during interview.
- Offender/victim relationships varied between crime types and across BCUs (particularly for domestic burglary). In nearly one in five detected domestic burglary cases the offender was known to the victim (ranging from 6% to 31% across the different BCUs). In nearly two-thirds of cases where first links were derived by victim or witness identifications or victim hunches, there was a prior relationship of some sort.
- Time has a strong bearing on detection, but there are at least four different aspects of it, and they are functions of different factors. The research separates 'victim opportunity' time – the scope that victims and the public have to report offences – from 'police opportunity' time, a function of police organisation and practice. Timeliness is also associated with the ways in which detection is achieved.
- The constraints imposed by time are clear: the proportion of cases where offences meet quite narrow 'victim opportunity' time bands – which were defined as those offences committed in a time band of ten minutes or less, and which were then reported to the police within ten minutes or less – is relatively small. For example, this occurs in only 11 per cent of burglary dwelling cases.

- There is no consistent evidence to suggest that the higher detection rate BCUs gain advantage by having offences reported more rapidly or by the police being more timely in their response to time-sensitive calls.
- There is little consistent support for the contention that the police do not carry out key activities as regularly at undetected cases as they do in directly detected cases. The comparison is however not straightforward, as the activities that the police carry out are context-specific.
- The number of leads in a case proved to be a reasonable predictor of detection. This effect was more pronounced when considering different sources by which a suspect's name could be obtained. The best predictor proved to be multiple leads – that is, the corroboration of evidence by different sources.
- When a multivariate model was used with the data, whether an offender was caught at the scene proved to be the factor that had the greatest impact of all factors, and by a wide margin. However, cases with this characteristic are rare. Forensic evidence increased the odds of a detection most for vehicle crime. For burglary dwelling cases, sources of information giving a name had a greater impact.

In Chapters 2 and 3, the extent to which offences were screened in for attendance was highlighted as an important part of the process by which investigative resources are targeted in some volume crimes. The process by which investigative resources are allocated will, in part, be determined by the presence or absence of strong initial leads, the presence or absence of forensic opportunities and the perceived seriousness of the offence (for example, distraction burglaries always receive a response). The last of these is not a reflection of potential solvability but reflects the need to meet public expectations about dealing with more serious crimes within the volume crime spectrum.

This chapter explores the value of – respectively – ‘solvability’ factors and ‘speculative enquiries’. It looks first at the complexity of separating each approach, and at how the ‘first links’ to suspect occur chronologically in an investigation. It then examines the relationship between strong initial leads, attendance and detections. It also explores what happens to those cases that do not have strong initial leads – both those which do receive initial police attendance and those which do not. Finally the issue of why some cases, with a seemingly high probability of detection, fail to be detected is examined. Understanding the complex relationships at work here may not only contribute to a better understanding of variations in BCU detection rates, it may also provide an insight into how effective current approaches are to targeting investigative resources.

Recognising the value of both ‘solvability’ and ‘speculative enquiries’

Eck’s triage hypothesis – that cases can be separated into ‘self-solvers’, those that can be solved with some investigative work, and those that will never be solved – was commended in the opening chapter of this report for being both simple and plausible. Many of the findings presented in the report obviously resonate with Eck’s categorisations. To the extent that the police service could, at an early stage in any investigation, accurately identify where cases sit along this continuum then the approach could have important policy implications. In practice those involved in investigations – from control-room staff to SOCOs – are already involved in making these sorts of judgements on a day-to-day basis.

The principal drawback of Eck’s typology, in terms of applying it operationally, is that it mixes the characteristics of the case (the ‘objective givens’) with the actions taken by the

police in response to the given situation. Both determine his definition of solvability. Building on the analyses reported earlier, some work was carried out to see how far the cases that formed part of the cohort review could be used to determine both when, and how, first links are established. The focus of the work was on direct detections only, and on the means by which first links were established between the suspect and the offence. To refine it still further the work focused only on those cases where first links were derived from 'initial investigations by the police', or 'evidence at the scene'³⁹, which account for the first links in 79 per cent of all non-TIC detections. Other cases were excluded on the grounds that those derived from later admissions, intelligence or general patrol activities will arise anyway (depending on the investment in these aspects of police work, or simple luck).

Table 6.1 presents the ways in which initial links were made in these cases and puts them in the temporal order in which these links occur⁴⁰. As cases in each 'cluster' of circumstances were covered, they were then removed from the next stage of the analysis: to convey this point the first in each pair of columns shows the proportion of cases with these attributes, and the second the proportion of cases remaining for initial identification at some later point.

Looking only on the 'all crime' total:

- Cases where the caller detains or names a suspect account for 18% of all first links and reduce the pool of cases still unexplained to 82%.
- Cases where the police response or area searches caught the suspect account for 43% of all first links and reduce the pool of cases still unexplained to 39%.
- Cases where the suspect is identified by the victim or a witness, including those where the witness came to light through house to house enquiries, account for 12% of all first links and reduce the pool of cases still unexplained to 27%.
- Cases where the suspect is identified by CCTV account for 2% of all first links and reduce the pool of cases still unexplained to 25%.
- Cases where the suspect is identified by forensic techniques account for 25% of all first links and 'complete the reckoning'.

39. The meanings of these labels are given earlier in the section.

40. The order presented here may not exactly represent what happens in each case, and in particular it is not easy to generalise about whether, at crime scenes, the police first interview victims and witnesses, or first make house to house enquiries.

Table 6.1: How 'first links to a suspect' occur in relation to direct (non-TIC) detections where first links were derived from 'initial investigations by the police', or 'evidence at the scene'

Column A (shaded): Percent of offences detected at each stage of investigative process.
Column B (un-shaded) Percent of offences detected by later actions

	CRIME TYPE									
	BDW		BOTD		TFMV		TOMV		Total	
	A	B	A	B	A	B	A	B	A	B
Caller details or names	22	78	17.4	82.6	15.4	84.6	13.7	86.3	18.1	81.9
Response or area search catches	30.3	47.7	44.3	38.3	53.8	30.8	53.2	33.1	42.6	39.3
Identified by victim or witness ⁴¹	17.8	29.9	1.7	36.5	12.8	17.9	9.7	23.4	12.3	27
CCTV	1.9	28	1.7	34.8	1.3	16.7	2.4	21	1.8	25.2
Identified from forensics	28	0.0	34.8	0.0	16.7	0.0	21	0.0	25.2	0.0

Unweighted detected cases where first links were derived from 'initial investigations by the police', or 'evidence at the scene'. N=659

As well as helping to separate the relative payback at each point, this analysis prompts some very basic observations that can be made in the debate about solvability:

- Some, but not all, of the characteristics of solvability can be identified from the initial information provided by victims or witnesses calling the police. But this always remains potential solvability. As Table 6.3 (below) will indicate, it is striking that when examining cases with strong initial leads and where the appropriate police intervention follows, the majority are still not resolved. Many suspects identified by witnesses are either not implicated, or their involvement cannot be proved. Suspects can have disappeared in minutes. In other words, the presence of solvability factors does not offer certainty in outcome.
- Conversely, detected cases do not entirely comprise those where potential solvability can be established in advance. In a significant proportion of direct detections (leaving aside, again, those derived from intelligence, general patrol activities, etc.) leads – and eventually a detection – only emerge from attendance, and then enquiries, at the scene. Of all the directly detected cases in the sample with relevant information (991 cases) the caller provided no initial lines of enquiry

41. This included cases where witnesses came to light through house-to-house enquiries.

in 36 per cent of them (353). Of these indications of initial suspect identifiers were available for 284 of them, of which just over 70 per cent (201) derived from information gleaned at the scene. In just under three quarters of these (148) physical evidence comprised the initial suspect identifier.

- Detected cases therefore comprise those with strong prior signs of solvability but also a high proportion derived from what might be labelled more 'speculative' enquiries.⁴² The latter require the basics – attendance at the scene, followed by some standard enquiries there – to be realised. Leaving aside detected cases where the first links between suspect and crime came about by subsequent intelligence work, admissions and 'general patrol activities', the research found that four per cent were accounted for by cases where the police had not attended a crime scene.
- Amongst those detections derived more speculatively, cases where contact trace material is found at or around the crime scene comprise classic examples of those where the investment in scene attendance pays off. The contribution from forensic techniques exceeds that derived from 'traditional' enquiries, interviews with victims/witnesses and searches, combined. Indeed, there is every sign that the returns from forensic scene examination are making positive inroads into even the apparent 'no hoppers' in Eck's typology.

These observations serve to remind practitioners that, whatever the benefits that might accrue from 'operationalising solvability factors', there will always remain a considerable measure of uncertainty about how to predict a crime will be solved: many cases that appear to be solvable at first sight will, in the end, fail; likewise some cases whose initial solvability appears to be low may in the end come to be solved.

Initial leads and scene attendance

The cohort review defined cases with 'strong initial leads'⁴³ as those where one or more of the following circumstances applied:

- 1) The suspect was already detained by the victim: across the whole weighted sample, this occurred in 0.3 per cent of cases.
- 2) The suspect's name had already been given to control-room staff: this occurred in 1.8 per cent of cases.

42. The use of this term is not intended to deny the fact that effective call handling routines may be able to pinpoint cases where, for example, witnesses may have heard something, or forensic clues may have been left.

43. These should not be confused with 'first links to a suspect', as described above.

- 3) The offender(s) were reported entering/inside or leaving the building, or motor vehicle, subject to the offence: this occurred in 11.4 per cent of cases.
- 4) A description of the suspect, or vehicle, had been provided: this occurred in 10.2 per cent of cases.

In some cases several of these circumstances applied, but across the whole weighted sample, a total of 17 per cent of cases provided one or more of these strong initial leads⁴⁴.

The questions of whether the BCUs achieving high detection rates experience a higher proportion of cases with strong initial leads like these (than do their low detection rate counterparts), or whether they receive proportionately much the same profile but make a point of always attending such scenes, could be fundamental to the explanation of detection performance amongst BCUs. Interestingly, there was evidence that some of the higher performing BCUs had a higher proportion of 'strong lead' cases, but this only applied in relation to two of the four paired comparisons, and one of these pairs was AH and AL whose differences in detection rate disappeared.

Table 6.2 determines the proportion of cases, by crime type and BCU, where these strong initial leads were available and where an initial response was made. This seeks to establish if there is evidence that low detection rate BCUs seem to have missed opportunities to attend such crimes. The pattern is somewhat mixed with one apparently 'perverse' finding in relation to theft from motor vehicles, in pair B. However, the data suggest this might be a factor at play in explaining BH's higher detection rate in respect of domestic burglary (BH attends 98% of such cases, compared to 87% in BL). It might also be a more consistent explanation for variations in the detection rates of thefts of motor vehicles (where the two higher detection rate BCUs, CH and DH, initially attend many more 'scenes' than their lower detection rate counterparts).

Table 6.2: Proportion of cases with strong initial leads where a response was made (percentages)

	AH	AL	BH	BL	CH	CL	DH	DL
BDW	100.0	99.0	98.0	87.0	96.0	96.0		
BOTD	100.0	100.0						
TFMV			67.0	85.0			100.0	97.0
TOMV					74.0	56.0	97.0	44.0

Base = 6,906 (weighted)

44. This information was typically available when the offence was being reported, having been relayed to the call taker by the victim or witness.

45. AH had 22% of cases with one or more strong leads compared to AL with only 12% and DH had 11% of cases with one or more strong leads compared to DL with only 5% (albeit the figures from DH fall well below the average).

Key features of cases with 'strong leads' that do not receive police attendance

Across all crime types, five per cent (5%) of offences with strong initial leads did not receive police attendance. As Table 6.2 indicates, theft of motor vehicles and theft from motor vehicles accounted for a high proportion of these offences. In those circumstances where there appeared to be strong leads but the case was not attended (and was eventually filed as undetected), the circumstances of the case were subject to more scrutiny. Attention was focused, in particular, on the type of crime, the time lapse between the discovery and report of the incident and the lines of enquiry that were reported. The following findings emerged⁴⁶:

- Cases where a name was given: there were a total of 119 undetected cases with this lead in the weighted sample which did not receive police attendance. All of these cases were for burglary dwelling, which would generally mean they would receive police attendance. The explanation for not attending this cohort appeared to be that in all of them there was a long period since 'offence commission' (over an hour) and thus the call handler may have thought that other offences required more urgent attention at that moment in time or that the opportunity for apprehending an offender had passed.
- Cases where offenders were entering/ leaving the property or vehicle: there were a total of 268 undetected cases with this lead that did not receive police attendance in the weighted sample. All of these cases related to vehicle crime (195 for thefts from motor vehicles and 73 for thefts of vehicles). This strongly suggests that the decision to attend was based purely on policy grounds. The fact that in many instances the offence commission time was short (0-4 minutes: for 57% of the theft from vehicle cases and for 71% of the thefts of a vehicle) seems to suggest these opportunities were sometimes overlooked.
- Cases where a description was given: there were a total of 463 undetected cases with this lead but which did not receive police attendance in the weighted sample. A total of 122 of these cases were burglary dwelling and the period between offence commission and report was 0-4 minutes. Understanding why this group of cases did not receive police attendance is somewhat perplexing. However, in 41 per cent (49 cases) there was no clear suspect. In the other 72 cases (59%), the case was actually filed pending further attention: this suggests that although the case did not receive an immediate response the case was going to be subject to review at a later date. The other 341 cases all related to vehicle crimes (249 thefts from vehicle and 92 thefts of vehicle).

46. There were no cases in the weighted sample where a suspect was detained that were unattended.

However, comparing the analysis above with the findings from Table 6.2, and also those relating to BCU initial attendance policies (see Table 2.3), is instructive. Table 6.3 presents the relationship between the overall initial attendance rates of the BCUs for three different forms of volume crime, and the initial rates of attendance of those with strong initial leads. As overall attendance rates for burglary dwelling cases are uniformly high, this offence is not considered.

The key finding is that where screening for initial attendance is being operated in a way that screens out very high proportions of scenes to attend (e.g. DL attends only 4.4 per cent of TOMV), a substantial proportion of offences with strong leads are not being followed up (more than half in the case of DL). Conversely and of course unsurprisingly, very high levels of first officer attendance appear to ensure that almost all strong leads are followed up. Thus, for example, DH's much higher overall levels of attendance (80 per cent of TOMV) includes all its strong leads.

But Table 6.3 also suggests that BCUs can adopt quite low overall scene attendance rates for particular forms of volume crime, but still manage to attend the vast majority of those with strong initial leads. There is some indication that CH, for example, while only attending a small proportion of its TOMV, covers most of its strong lead offences. It attends only 12.9 per cent of its TOMV – 5.2 percentage points higher than CL, but attends almost a quarter more strong leads than its comparator BCU (74% compared to 56%). This suggests that CH, while screening extensively, is doing so effectively.

Table 6.3: The relationship between overall attendance rates and the percentage of scenes with strong initial leads attended: BOTD, TOMV and TFMV

		Attendance rate for all cases			
		4-13%	38-40%	62%	80-100%
Attendance rate cases	40%-56%	CL(TOMV)			
		DL(TOMV)			
cases with strong leads	67%-74%	CH(TOMV)		BH(TFMV)	
	85-100%		BL(TFMV) DL(TFMV)		AH(BOTD) AL(BOTD) DH(TFMV) DH(TOMV)

Leads, attendance and detections

Strong initial leads may, overall, lead to a greater likelihood of attendance than cases without but it should not be assumed that strong leads automatically generate detections. Indeed the analysis paints a rather more complex picture.

Table 6.4 indicates what the case outcomes were where cases had a strong initial lead and were attended by the police. It indicates that all cases where a suspect was detained (only 109 cases overall, even in the weighted sample) were detected; that those where a name was given were slightly less likely to be detected (45%), but in the case of offenders inside etc. or where descriptions were given, they were much more likely to remain undetected than detected. Overall 20 per cent of cases with any strong lead and that received an initial police response were directly detected, but 77 per cent were not. In short, the presence of what have been designated strong initial leads and police attendance does not by any means guarantee that a detection will be achieved.

Table 6.4: Outcomes of cases attended by the police with strong initial leads (row percentages)

	Directly Detected	TIC detected	Not detected
Suspect detained	100.0	0.0	0.0
Name given	45.2	0.0	54.8
Offenders entering/inside/leaving	21.9	3.5	74.6
Description of offender/vehicle	13.1	3.3	83.6
Any strong lead	20.0	3.1	77.0

Weighted base = 6,906

Figure 6.1 gives an overview of what happens in three types of case: cases with strong initial leads, those with no strong initial leads but where forensic clues were yielded, and all other cases. Cases with strong leads comprised 17 per cent of the weighted sample and 95 per cent of these received an initial response. Of these, 20 per cent were directly detected and 80 per cent were not. A similar proportion of the cases (17%) did not yield strong leads but forensic clues were later yielded from these scenes. It must be assumed that, in many of these cases, the scene must have been attended because of the likelihood of finding forensic clues⁴⁷: 93 per cent of this group of offences were attended and ten per cent of these were directly detected.

47. Items found at crime scenes can of course be recovered and subjected to examination without SOCO attendance at the scene.

This leaves some two-thirds of the sample (66%), which had neither initial strong leads nor later forensic clues. Of these, 65 per cent received an initial response, and of this sub-group, three per cent were directly detected. Those cases that did not receive an initial response had a very slim chance of being detected (only 1%).

Looking across all cases, the general point is that initial attendance at the scene is an important precursor to securing the likelihood of a detection.

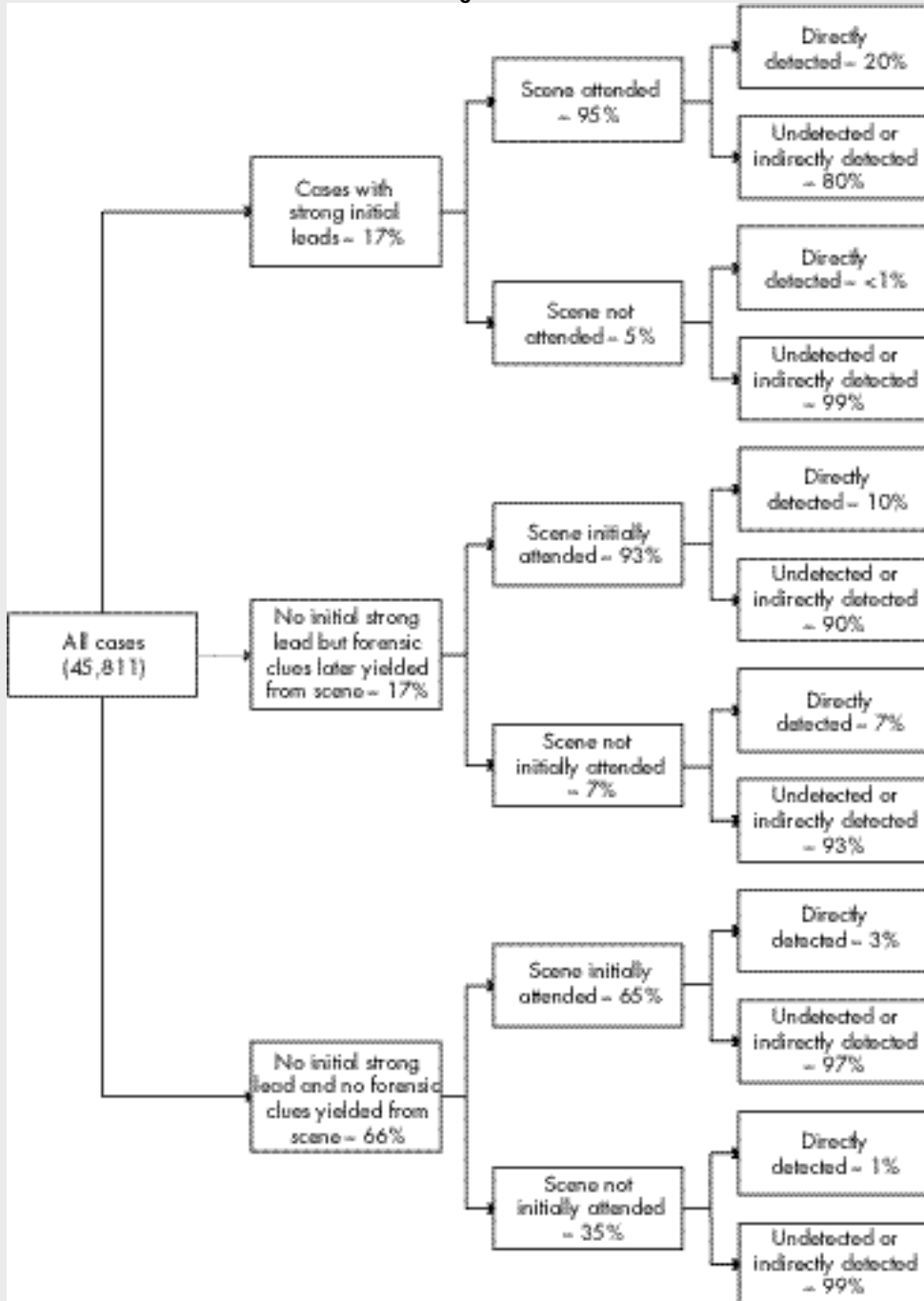
If the more 'solvable' cases can be identified through initial information provided by the caller, then it would be expected that a higher proportion of detections would arise from cases with strong leads and those which seem to promise forensic clues (and which, on attendance, do so). Figure 6.1 provides some evidence for this, but it also indicates – looking at those cases with no leads and no forensic clues – that the act of visiting the scene itself generates leads and these in turn can yield detection opportunities. Indeed, these account for 20 per cent of all direct detections in the weighted sample. The implication is that the process of attending the scene adds value to the investigative process and improves the overall potential for detection.

The information on directly detected cases shown in Figure 6.1 can also be represented as a proportion of all directly detected cases in the weighted sample. On this basis, cases with strong initial leads that were attended accounted for 50 per cent of all direct detections; cases with forensic clues that were attended accounted for 25 per cent and cases with no strong leads or forensic clues that were attended accounted for 20 per cent of all direct detections. The remaining four per cent of detected cases resulted from scenes that were not attended.

Missed opportunities for detection?

The concluding section to this chapter examines the issue of 'missed opportunities' for detection. The focus is on cases that remain undetected, despite having a high probability of detection (according to the models developed in Chapter 5). The commentary below first examines various factors about such cases. Then attention is turned to the messages conveyed by analysis of the research team's own assessment of 'what blocked' police enquiries, bearing in mind that it is highly unlikely that crime reports will expressly indicate that potential leads were ignored, and that the assessment had to be more circumstantial.

Figure 6.1: Summary of actions and outcomes of cases with strong leads, those where there were no initial strong leads, but forensic clues were later obtained, and those with no initial strong lead and no forensic clues



Factors preventing detection

The detection models presented in the previous section were used to generate a predicted probability of detection and these were split into five groups. In each undetected case where there was a suspect, or where there had been clues, researchers recorded the factors that appeared to have prevented detection (up to three explanations could be provided). However, explanations were not consistently available to the researchers, and so it was not possible to explain the failure of the case to result in detection in each and every case. On the other hand, some cases had a number of explanations each relating to a different part of the case. The analysis therefore should be viewed as 'indicative' rather than statistically robust.

The commentary below summarises the main explanations found in reviewing cases of burglary dwelling, thefts of vehicles and finally theft from vehicles⁴⁸.

Burglary dwelling

There were 37 cases of undetected burglary dwelling that, according to the model, had the highest probability of detection. The research team recorded 38 'explanations' for the cases not being detected, and a summary – on a case basis – is provided in Table 6.5.

The most common factor was that the forensic evidence gathered could not be linked to a suspect, or the suspect had legitimate access to the property. Almost as common were cases in which the 'identification' from a victim hunch could not be substantiated. In many of these cases the identification seemed quite plausible, but it was difficult to consider what action the police could have taken to progress it: for example, 'victim suspects brother of his ex wife (who lives in flat upstairs) – but no evidence recorded against him'. However, not all victim hunches were even this substantial: for example: 'victim did not witness the burglary and has no further witness to it – has just been given a name by people off the estate but this is only speculation and there are no supporting facts at all'.

In some cases the possible suspect identification, or the description provided, was simply not good enough. In others, the evidence to link the suspect to the offence was not strong enough or the evidence conflicted: for example, in the case where the suspect had been committing a fraud with a benefit book stolen in the burglary, the researcher recorded that the case was filed as 'undetected', 'as offender could not be placed at scene, and he said he got benefit book from some bloke he did not know'. These assessments of the quality of the evidence came from police and CPS reviews.

48. The same approach was applied to non-dwelling house burglaries. However, when those cases with the highest probability of detection had been identified, there were no cases where the research team were able to find any explanation of the failure to detect the case.

The failure to detect in a sizeable minority of cases was attributed in part to poor co-operation from the complainant, and in a couple of cases the follow-up to leads were not recorded.

Table 6.5: Factors preventing detection in burglary dwelling cases

Factor preventing detection	Number of cases with this factor
Forensics not linked	9
Victim hunch not substantiated	8
Evidence not good enough	8
ID or description not good enough	7
Poor complainant co-operation	4
Follow-up not recorded	2

Unweighted, (N=37)

Theft from motor vehicle

The same approach was applied to theft from motor vehicle cases that the model anticipated had the highest probability of detection, but were filed as undetected. As the number of cases was lower, the top two of the five probability bands were reviewed. This gave 27 cases, from which 24 explanations were recorded: a summary is provided in Table 6.6.

Mirroring the lessons derived from burglary dwelling cases, the most common explanation recorded for these cases was that the forensic evidence obtained was not linked to a suspect. Next most common was that suspects could not be identified from descriptions: a typical record was ‘witness unable to identify anyone from photos’.

Again there were records of complainants failing to co-operate, with records such as ‘Victim not interested in progressing – wants report for insurance purposes only’. There were also a couple of instances where witnesses would not assist the police. If these two categories are added together, then cases where the complainant or witness would not co-operate were equal in number to those where forensic clues failed to materialise.

There were three cases where the CCTV recording was not of sufficient quality to lead to an identification, two cases where insufficient police resources were a problem for the case, and another in which a witness was no longer available.

Table 6.6: Factors preventing detection in theft from motor vehicle cases

Factor preventing detection	Number of cases with this factor
Forensics not linked	6
ID/description not good enough	5
Poor complainant co-operation	4
CCTV negative	3
Police resources	2
Witness will not co-operate	2
Evidence not good enough	1
Witness not available	1

Unweighted (N=27)

Theft of motor vehicles

Nineteen cases of theft of motor vehicles were undetected in the top two bandings of probability of detection for these cases. There were 22 factors recorded as preventing these offences being detected: a summary is provided in Table 6.7.

Again, the most common factor (applying to 7 cases) was that the forensic evidence obtained failed to provide a link to a suspect, or provided a link to someone with legitimate access to the vehicle.

The next most common explanation covered six cases where the evidence turned out not to be good enough. A couple of these cases involved suspects who were detained nearby but not driving the vehicle: for example 'four people were arrested near to the motor vehicle. However they were not seen in the motor vehicle, and stated they had their own motor vehicle when questioned'. In three cases the CCTV evidence was not adequate.

There were also three cases in which the suspect or vehicle could not be traced, two cases where descriptions were not sufficiently comprehensive to be of use, and one case in which there was no record of the lead being followed up.

Overall, therefore, two key themes emerge from this analysis of 'missed opportunities' in detections. The most common reason why leads don't materialise is that forensic material found at the scene fails to yield a plausible suspect, either due to their absence from the relevant database or claimed legitimate access. The second most common reason relates to the quality of evidence available.

Table 6.7: Factors preventing detection in theft of motor vehicle cases

Factor preventing detection	Number of cases with this factor
Forensics not linked	7
Evidence not good enough	6
CCTV negative	3
Suspect/vehicle not traced	3
ID/description not good enough	2
Follow-up not recorded	1

Unweighted, (N=19)

Summary

- Some, but not all, of the characteristics of solvability can be identified from the initial information provided by victims or witnesses calling the police. But the presence of solvability factors does not make it ‘odds on’ that a detection will be achieved. Many suspects identified by witnesses are either not implicated, or their involvement cannot be proved. Suspects can have disappeared in minutes. In other words, the presence of strong initial leads does not offer certainty in outcome.
- Detected cases do not entirely comprise those where potential solvability can be established in advance. In 20 per cent of direct detections, leads (and eventually a detection) only emerge from attendance, and then enquiries, at the scene.
- Cases with strong initial leads – were a suspect was detained at the scene, a suspect name given to control-room staff, an offender reported entering/leaving the building or vehicle, or vehicle or suspect description was provided – accounted for 17 per cent of the sample.
- Not all cases with strong initial leads receive an attendance: five per cent of all cases with strong leads do not, and cases involving theft of, or theft from, motor vehicles account for a high proportion of this group.
- The relationship between overall attendance rates and attendance at offences with strong initial leads is complex. The broad picture is that screening out a very high proportion of cases risks failure to follow up those with strong leads – with a consequential loss of detections. One BCU, for example, screened out a very high proportion of theft of motor vehicle cases, and failed to attend more than half of such cases with strong initial leads.
- Some BCUs, however, appear to screen effectively. One high detection rate BCU succeeded in combining a high attendance rate at strong initial lead cases with relatively low overall attendance.

- Leaving aside detected cases where the first links between suspect and crime came about by subsequent intelligence work, admissions and 'general patrol activities', the research found that only four per cent of direct detections were accounted for by those cases that did not receive an initial police response.
- Overall, in this sample, half of all directly detected comprised those with strong initial leads and 50 per cent were derived from those where the investigative opportunities are less clear-cut. The latter require the basics – attendance at the scene, followed by some standard enquiries there – to be realised.
- Two key themes emerge around an examination of 'missed opportunities' in detections. The most common explanation for why cases with apparently strong leads do not result in a detection is the failure to identify a suspect through forensic linking, either due to their absence from the relevant database or claimed legitimate access. Another common theme appears to relate to the quality of evidence available.

7.

Indirect detections: offences taken into consideration (TICs)

The commentary hitherto has focused on direct (non-TIC) detections, on the basis that a prerequisite of TICs is that the police have identified, and charged, a suspect. There are mixed opinions about the value of TIC detections. Some believe them to be valid and useful both to the offender and to the victim, as means respectively of ‘cleaning the slate’ and of obtaining reassurance that the offender has been found and dealt with. Others believe TICs to be of little or no value, as they take time from the more important work of direct detection and have a negligible impact on sentencing when cases go to court. These variations in view were reflected in the effort devoted to securing TICs within different BCUs. BCUs’ policies and practices in relation to TICs, as well as their impact on detection rates, together with some findings derived from the cohort review, are addressed here.

The use of TICs

TICs are regarded as sanction detections and the impact of TICs on detection rates at a national level is explored in the allied report (Tilley and Burrows, 2005). This points out that there is considerable variation in the use of TICs by crime type: they account for nearly half (49%) of theft from motor vehicle sanction detections, 40 per cent of those for domestic burglary, 33 per cent of those from non-domestic burglary and just less than a quarter (23%) of the sanction detections for thefts of motor vehicles. At a force level there is considerable variation in both overall and sanction detection rates and certainly this variability is much reduced when looking at sanction detections excluding TICs. This implies that a main source of variability lies in different forces’ use of TICs (moreover BCUs’ use of TICs tends to broadly reflect that of their host force). But analysis reveals the picture is a great deal more complex than TICs simply serving to boost the performance of forces with lower direct detection rates. In some forces there are at least as many TICs as non-TIC detections, in about an equal number there are 0.2 or fewer TICs per direct sanction detection. Examining the relationship across the 266 BCUs where data were available, for each volume crime type there was a very slight inverse relationship between the non-TIC detection rate and the number of TICs per non-TIC detection – in other words non-TIC detection rates fell as the number of TICs rose – though the relationship was very weak.

In the current study, the ratio of TICs to direct detections varied widely by BCU, as shown in Table 7.1⁴⁹. On the one hand, the pattern was generally for the BCUs with higher rates of overall detection also to have higher ratios of TICs to direct detections, the exception being the pair of BCUs from ‘comparison C’ (in family 10). This suggests that their high overall sanction detection rates were partly attributable to their use of TICs. But with the exception of CH and CL (and then only burglary dwelling cases), those BCUs with higher detection rates overall displayed both a larger proportion of cases directly detected and higher TIC ratios from those detected directly. In short, the cohort review indicates that a strong orientation to detection often includes both attention to direct detection and efforts to achieve TICs from cases directly detected.

Table 7.1: Ratio of TICs to direct detections (cohort review)

	AH	AL	BH	BL	CH	CL	DH	DL
BDW	0.5	0.1	0.2	0.1	0.1	1.5		
BOTD	0.4	0.3						
TOMV					0.4	0.3	1.2	1.0
TFMV			0.6	0.1			3.1	0.5

Another way of looking at cases detected by TIC is to examine their a priori ‘detectability’ (compared to cases that are not detected, and those that are directly detected). Table 7.2 does this, and shows the proportion of cases without leads falling into each group. As might be expected, the detection of TICs is not related to the characteristics of the offence or the primary investigative activity of the police.

Table 7.2: Proportion of cases without leads for offences detected by TIC, undetected and directly detected (per cent)

	TIC	Not detected	Directly detected
No offender caught at scene	96	100	52
No DNA	93	98	74
No fingerprint	83	84	60
No suspect name	98	97	66
No suspect description	80	75	53

49. The data collected during the cohort review could have underestimated the number of TICs. TICs take longer to achieve than direct detections, and there will be further TICs that occurred after the data collection exercise undertaken in this study. Although there was some evidence to support this, TICs ended up comprising some one-third of the detected cases in the sample and this matched national figures of about one-third, which implied very few TICs would have been missed out from the case tracking due to the time issue.

The ability to derive TICs from interviews with suspects is of course dependent on a wide range of factors, but it is reasonable to assume that the length of interview with suspects is a general 'proxy' measure of endeavour in this regard. The cohort review indicated that in CH, for example, the typical suspect interview in relation to volume crime offences lasted between three and seven minutes only.

Table 7.3 shows that where CID officers are involved in interviewing suspects, the proportion of cases detected by TICs increases substantially. It is not clear whether this is a function of the nature of the cases allocated to CID or of the orientation and specialist interviewing skills brought by CID. It is most plausible that CID officers do bring skills that are less well developed amongst uniformed officers, but the criteria employed to decide if the CID should intervene is likely also to have a marked bearing.

Table 7.3: Percentages of all cases indirectly and directly detected, by primary suspect interviewer (row percentages)

	Per cent indirectly detected	Per cent directly detected	Total number of cases
CID	23	77	461
Uniformed officers	12	88	422
CID and uniformed	26	74	78

Achievement of TICs is also influenced to some degree by solicitor presence during interview. Amongst the cases tracked, a solicitor was recorded as present during interview in two-thirds of cases. Where a solicitor was present (n=298) TICs were admitted in 13 per cent of primary suspect interviews. Of the remaining one third of interviews (n=143) where a solicitor was not present, TICs were admitted in 20 per cent⁵⁰.

Policies and practices surrounding TICs

The commentary on indirect (TIC) detections above indicated that a strong orientation to detection often includes both attention to direct detection and efforts to achieve TICs from cases directly detected. But it also pointed out that the pattern was generally for the BCUs with higher rates of overall detection also to have higher ratios of TICs to direct detections. Table 7.4 explores the impact that TICs have on overall sanction detection rates in more detail: focusing on the three pairs of BCUs (B, C and D) where differences in detection rates persisted during the research period.

50. This falls just short of statistical significance at the 0.05 level (chi square=3.78, df=1, p<0.1).

Table 7.4: Impact of TICs on detection rates in comparisons B, C and D (percentages)

	Burglary dwelling			Theft from MV			Theft of MV		
	High detection rate BCU	Low detection rate BCU	Difference	High detection rate BCU	Low detection rate BCU	Difference	High detection rate BCU	Low detection rate BCU	Difference
Comparison B									
Overall sanction detection rate	25.3	7.9	17.4	8.9	2.5	6.4			
Non-TIC detection rate	15.2	7.0	8.2	4.4	2.1	2.3			
Difference attributable to TICs	10.1	0.9	9.2	4.5	0.4	4.1			
Comparison C									
Overall sanction detection rate	18.6	8.5	10.1				16.0	11.2	4.8
Non-TIC detection rate	14.1	4.5	9.6				13.6	9.0	4.6
Difference attributable to TICs	4.5	4.0	0.5				2.4	2.2	0.2
Comparison D									
Overall sanction detection rate				36.0	14.4	21.6	32.2	7.2	25.1
Non-TIC detection rate				16.0	9.0	7.0	4.6	3.0	1.6
Difference attributable to TICs				20.0	5.4	14.6	27.7	4.2	23.5

The patterns revealed in this table are that:

- for pair B, TICs account for just over half of the variation between BH and BL in relation to domestic burglary (52.9%: that is, the differences in detection rate are reduced by 9.2% from the original 17.4%) and nearly two-thirds of the theft from motor vehicles variation (64.1%);
- for pair C, TICs account for very little of the variation in relation to either detection rates for domestic burglary (5.0%) or those for theft of motor vehicles (4.2%); and
- for pair D, TICs account for two-thirds of the variation between DH and DL in relation to detection rates for thefts from motor vehicles (67.6%) and nearly all of the variation in relation to theft of motor vehicles (93.6%).

To probe these issues a common template was adopted. This was designed in a way that recognised that, while at a formal level any TIC is simply a ‘deal’ between the suspect/defendant and the court, in reality it reflects a complex interplay between these two parties and the police, the CPS and defence solicitors.

Given the very large disparity in TICs achieved, it was possible that the BCUs that were ‘highly reliant’ on TICs could be relatively simply distinguished from the ‘low reliant’ on a number of key criteria – for example, by the presence of a clear and unequivocal policy endorsing the need to pursue TICs in every interrogation. In practice, however, the divide between high and low proved much more difficult to chart: for example the one BCU which appears strongest in its policies and senior management support (BL) has, by some margin, the lowest detection rate in relation to this form of detection whereas the highest using BCU (DH) appears to have no policy or formal guidelines on the use of TICs – but a strong culture which values them.

The commentary below provides a brief overview of some of the messages conveyed from these enquiries. This is followed by an attempt to separate out what distinguishes high TIC BCUs from low TIC BCUs.

Policy on TICs. Only two of the eight BCUs appeared to have any detailed policy direction in relation to TICs: interestingly these policies were found in ‘low user’ BL – where knowledge of the policy appears high – and a relatively ‘high user’ CL where a number of officers seemed unaware that any policy existed. A number of BCUs noted that, until recently, their priority has been on obtaining charges and convictions and that these specifically excluded TICs. One BCU noted that the adoption of ‘Narrowing the Justice Gap’ targets had refocused the force/BCU attention on TICs.

Support for TICs from senior management. The level of encouragement to obtain TICs seemed to vary widely but again not in a consistent way that would clearly separate 'high' and 'low' users. Interviews in AL revealed a very clear emphasis on crime reduction over detection, and the widespread perception that TICs are not valued. In stark contrast, BL – with only eight per cent of its sanction detections attributable to TICs – now has a new initiative designed to increase TICs.⁵¹ This includes a "Get it off your chest" poster for custody suites and a notice that is handed to offenders to read while in custody both urging offenders to take the opportunity to admit to offences. It includes a 'sign off' sheet for use at the end of interviews that ensures that the opportunity given to admit to other crimes is documented. It has also been agreed with CPS that if an offender who has signed this sheet is subsequently found to have committed an offence that he could have admitted at this point and didn't do so, then that would be evidence that it is in the public interest to prosecute.

Local Performance Indicators and management criteria. There is no evidence that TICs themselves formed part of the formal PIs in any of the BCUs under review (except as a component part of sanction detection rates), but this does not mean that there is no positive support towards obtaining TICs. In DH (with the highest use of TICs), for example, the support is epitomised by the assignment of officers to cases: here it is standard practice that if a uniformed officer (with less experience of obtaining TICs as documented below) senses that he/she is interviewing a persistent offender, no matter what the offence, then a member of CID will be assigned to assist the officer with (in their phrase) 'interviewing the offender to the fullest degree'.

Interview protocols or techniques. The techniques employed in interviews are very important, but none of the target BCUs could specifically point to formal training or guidance on how to maximise the chances of obtaining TICs (even within the ambit of training courses for new detectives). The common response is that this comes down to the experience of the officer conducting the interview, the quality of intelligence available at the time of the interview and the ability to build a rapport with the suspect. However some BCUs (like DH) were better than others at attempting to build the necessary experience amongst junior officers, for example by having CID present at interviews so that officers could observe how TICs are taken.

Most officers know that TICs cannot be used as inducements. Often, experienced officers will discuss forensic enhancements, and the progress that is being made in collecting evidence: they will state that there is a very good chance of being linked to crimes and

51. From reports made from other BCUs, it appears that similar operation may have been fostered nationally. The fact that the initiative is new and the comparison drawn here is with data from 2002/3 may of course indicate that this BCU is taking active steps to remedy past deficiencies in its policies and approach.

arrested in the future. Ultimately, however, officers have to wait for a positive response from defendants. If TICs are forthcoming then BCUs maintain that each offence admitted is carefully researched, to prove that they are telling the truth.

It is striking that interviewees across most BCUs tended to adopt the position that TICs should be left to CID to obtain. However, some BCUs highlighted a number of problems with this approach. These include the high rate of turnover of CID staff and force structures preventing CID staff from undertaking this role.

Position adopted by local offenders (and their defence solicitors). Of course the primary motivation for TICs is that most defendants believe it is better to have TICs attached to their main charge than risk an additional arrest and charge later down the line. The view of officers involved in interviewing in BL was that local offenders (supported by their solicitors) never admitted anything, however damning the evidence and that TICs were seen among the quite tight-knit community of local offenders as not being of any benefit. It was suggested that if any 'prison gate' arrests had taken place then word would have got round very quickly.

A number of interviewees suggested that there are only certain offenders who will admit to TICs. In their view, those who are more likely to request TICs are those defendants that have been granted TICs before and are therefore familiar with the system. In addition TICs may come from associates of offenders who have given TICs in the past and have been told about the TIC system.

The issue is not only down to the individual defendant but also the solicitor who is representing them. Many legal firms are known for advising their clients to make 'no comment' interviews, and because of this many officers take the position that it is pointless to raise the subject of TICs during interview because of the presence of a solicitor: the analysis reported earlier seems to support the view that interviews in the presence of solicitors produce fewer TICs, but it did not establish if this is because solicitors resist them, or because the police may fail to press for them. Police interviewees, however, suggest that the position adopted by the solicitor is usually negative, as for the defendant to accept a TIC would mean them admitting the main offence. Several BCUs pointed out that solicitors are financially disadvantaged by TICs – even in circumstances where it may be in his/her client's best interests to 'come clean', it is not in the solicitor's (who is likely to be called on if later arrests are made).

CPS policies or guidelines on TICs were not found in the target BCUs – but a significant number of respondents have made reference to the CPS line that, once an offender had been sentenced for a crime, it will not be in the public interest to pursue similar offences before that date.

Perspective adopted by local courts. The conversations with CPS lawyers reveal that the courts will attach some weight to the TICs, but not the same as a charged offence. However one CPS interviewee pointed out that a magistrate/judge never states what sentence the TIC gets. In some police interviews it was even evident that officers thought the courts will “give credit” to the defendant for assisting the police.

Reliability of the data on TICs. Interviewees in two BCUs raised the issue of defendants attending court with TICs attached to their case, who then refuse to accept all or some of them ‘on the day’. The CPS has no evidence for them and so – in the words of one senior police respondent – they just ‘disappear into the ether’. It is not known how widespread this practice might be but, to combat this situation, one of the target BCUs has now ruled that if an offender signs off cases on a TIC sheet then those TICs are classed as disposals⁵². The CMU can then sign them off as a means of disposal, and thus a positive result.

The commentary above indicates that all BCUs report facing difficulties in eliciting TICs, including those that appear to achieve them with some regularity. While the primary methodology of the current study has been to explain variation between each pair of BCUs, it was thought there might also be some payback from separating the eight BCUs according to how far they achieve TICs against the national standards. Applying this yardstick tends to divide the eight into three camps, as Table 7.5 indicates.

Table 7.5: Typology of high, medium and low users of TICs as a method of detection: eight BCUs

HIGH (substantially above national figures for volume crimes)	MEDIUM (close to national figures for volume crimes)	LOW (substantially below national figures for volume crimes)
DH (61%)	DL (31%)	AL (12%)
BH (53%)	CL (30%)	BL (8%)
	AH (26%)	
	CH (22%)	

Using these, more blunt, means to separate the different lessons derived from the process maps/interviews serves to highlight what might be presented as ‘good practice’ in relation to obtaining TICs. The key messages are set out in Table 7.6.

52. It is understood that the Home Office formerly took the position that all TICs had to be validated by the courts, but that this instruction eventually had to be withdrawn in the light of the fact that so many police forces fail to obtain reliable data on court outcomes. In these circumstances the practice of treating all cases signed off on TIC sheets as if they were taken in court is probably widespread.

Table 7.6: Distinguishing characteristics that separate high users and low users of TICs: eight BCUs

Factors assisting/supporting attempts to obtain more TICs	Factors impeding/preventing attempts to obtain more TICs
<p>Vigorous performance regime: with major emphasis on crime detection, and which takes account of all detections</p>	<p>Absence of strong performance culture, or a culture that does not value TICs (e.g. value is only attached to 'judicial disposals') or focuses on alternative objectives (e.g. crime reduction prioritised over detection)</p>
<p>Crime pattern analysis to link offences with similar MO etc. carried out in advance of interview</p>	<p>No intelligence package produced, or is produced too late: sometimes due to lack of resources in intelligence</p>
<p>Strong cultural commitment to 'interviewing the offender to the fullest degree' and even that TICs constitute the 'lazy police officers' charter' (i.e. if you don't get the detections this way it will be a lot harder to arrest and charge on each offence individually)</p>	<p>No perceived gain from TICs (e.g. officers argue offenders are seldom given proportionate increase in sentence)</p>
<p>CID officers either undertake many volume crime interviews, or are routinely on hand to support less experienced uniform officers</p>	<p>Uniformed officers account for the bulk of interviews carried out in relation to volume crime offences</p>
<p>Notice issued to all suspects/defendants indicating that 'gate arrests' will be carried out, and that advances in fingerprint/DNA matching make this more likely</p>	<p>The low likelihood of 'gate arrests' (prevented by the CPS as 'not in the public interest') is not disguised</p>
<p>Some 'flexibility' applied to the guidelines surrounding the taking of TICs, and no great concerns about the proportionality between charged and TIC'd offences</p>	<p>Formal rules applied rigorously, and 'ethical' stand applied – together with significant concern that any breach can lead to cracked trial on main charge</p>

Summary

- Looking at indirect detections, the pattern is generally for the BCUs with higher rates of overall detection also to have higher ratios of TICs to direct detections, suggesting that greater use of TICs contributes to their higher overall sanction detection rates.
- Generally those BCUs with higher detection rates overall displayed both a larger proportion of cases directly detected, and higher TIC ratios from those detected directly. In short, a strong orientation to detection often includes both attention to direct detection and efforts to achieve TICs from cases directly detected.
- Where CID officers were involved in interviewing suspects the proportion of cases detected by TIC increased substantially, although it is unclear whether this is due to the nature of cases allocated to them, or as a result of their applying specialist skills.
- Pursuit of TICs can substantially boost detection rates, but obtaining them ethically requires motivation, efforts, skill, and CPS co-operation.
- TICs alone will be insufficient to obtain overall high detection rates.

8.

Explaining differences in detection rates

This chapter sets out some possible explanations for differences in investigative performance amongst the eight BCUs included in this study. It draws on interviews, documentary evidence and aggregate data provided by those BCUs, as well as the case file analysis, to try retrospectively to make sense of the differences in rates of direct and indirect detection. It begins by looking at factors that may explain variations in detection rates between ‘same family pairs’. Finally, it summarises interviewees’ views on what was either inhibiting or assisting the achievement of high rates of detection: even in BCUs with relatively high rates of detection, those talked to could identify obstacles to improved performance.

It is important to recognise, as should be clear from the preceding chapters of this report, that the issues at stake in detecting the sampled volume crimes are highly complex. The accounts given in this chapter describe, thus, best efforts to identify some of the key factors that emerged plausibly to explain variations in BCU performance, and for which there is, at least, some evidence.

As indicated in chapter 1, and drawing on Jansson (2005), this study has looked at ways in which detection rate differences, by paired BCUs, are produced, under four main headings:

1. Resource variations: the availability and use of resources to investigate volume crime.
2. Regime variations: policies, patterns of management, leadership and policing style as they relate to the investigation of volume crime.
3. Activity variations: the patterns of activity in the investigation of cases – including scene attendance, collection of evidence, interviewing and the pursuit of TICs – as they relate to volume crime.
4. Case variations and the context for investigation: the opportunities furnished for the detection of volume crimes, for example by patterns of offender behaviour, of individual case attributes, and of types of community structure.

These four factors are not entirely discrete. For example, a BCU that stresses detection above all other police functions is likely to prioritise it in the allocation of resources, in performance management, and in tracking activities that maximise opportunities for detection. Nevertheless, overall levels of resource availability and the attributes of cases are at least in part ‘external givens’ for a BCU. Regime and activity attributes will, of course, be determined to some degree by force headquarters, and hence to that extent will also be beyond BCU control.

Differences between each family pair

Because the reference period for the selection of BCUs for this study was 2002/3 and the period over which most of the cases were selected for the cohort review was 2003, each discussion of BCU family pairs begins by looking at any significant changes in detection rates that took place, before going on to try to explain either change or continuity in the performance variations.

Comparison A: the 'multicultural metropolitan' BCUs

Although AH was selected initially as the relatively high direct detection rate BCU in Family 2 and AL was selected as the low direct detection rate BCU, in the event this difference was not sustained during the period over which cases were tracked in the cohort review.

Across all measures of detection AH was substantially higher than AL at the time the sample of BCUs was selected. The change in relative performance is clear. AH's direct and indirect detection rates went down for both domestic and non-domestic burglary. There was also a fall in detection rates in AL in relation to domestic burglary, though this was less steep than in AH. But by 2003 AL had recorded an increase in the detection rate for non-domestic burglary, compared to the sharp reduction in AH, so much so that AL had come substantially to have higher detection rates for this crime type, with an overall detection rate of 12.7 per cent, compared to 8.7 per cent in AH. The explanatory task for the pair of BCUs in Family 2 was, therefore, somewhat different from that for the pairs from the other families, where the differences in detection rates remained roughly the same.

AH and AL differ from the other pairs of BCUs in coming from the same police force. Hence they both operated within similar overall policing and performance management regimes. They also operated with similar levels of resource, as was shown in Table 2.2. Simply in terms of volume crimes per officer they were both relatively well-provided. The force within which AH and AL operates was one where the Street Crime Initiative operated and it was claimed that investigative efforts were directed at street crimes at the expense of the volume crimes experienced there. So far as opportunities to detect go, even the socio-demographic characteristics had some similarities, although AL had more, better-off parts than were to be found in AH, and AH was said to have a rather more fluid resident population. Given these similarities in circumstance it is not surprising that detection rates converged. The direct detection rates came to fall within so narrow a band that there were no major differences to explain. TICs were pursued more vigorously in AH than in AL, and this is reflected in their greater use in the BCU selection year and the continuation of this with domestic burglary, though not in relation to non-domestic burglary (where they became quite similar, with slightly more in AL).

It is difficult to explain historically why AL had in the past achieved substantially lower detection rates than AH. Interviews with officers suggest that it may have to do with the greater importance attached to crime reduction (and perhaps in part for this reason, AL did have a substantially lower crime rate than AH, as shown in Table 2.2). What is clearer is that there had been substantial efforts in AL to improve performance, which had been identified as a problem in their HMIC inspection. In regard to burglary, this led to the establishment of quite wide-ranging minimum standards, whose application may go some way to explain the improvements in detection rates for non-domestic cases. In AH the deterioration in detection rates may be explained by the reduction in attention to performance (and hence a focus on the achievement of detections), combined with the disbandment, on resource grounds, of a specialist, dedicated burglary squad.

What AH and AL seem to show is that if external pressure is applied to concentrate attention on detection, performance can be improved. They also show that sustaining higher detection rates can be fragile and that 'taking the eye off the ball' can lead to quite rapid and substantial deterioration.

Comparison B: the 'disadvantaged city' BCUs

Although it is clear that there were some changes in detection rates in the pair of BCUs selected from Family 4, compared to the changes in the Family 2 BCUs they were marginal. The relative detection rates from the two BCUs for the sampled crime-types remained similar, and the relative use of TICs also remained much the same. In this case, it is necessary to ask what explains the continuing substantial variations in patterns of clear-up across the two BCUs.

Several factors appear to contribute to the differences in rates of detection between BH and BL, although it has not been possible to tease out their relative significance. First, there were substantial variations in police resources in relation to the rate of volume crime. As was shown in Table 2.2, there were close to two and a half as many crimes per officer in BL as in BH, suggesting that fewer resources might have been available for detection. This is consistent with research showing a relationship between volume crimes per police officer and detection rates across all BCUs nationally: as the number of crimes per officer increased rates of detection went down (Tilley and Burrows, 2005).

Second, the regimes of BH and BL differed in ways that appear relevant to variations in patterns of clear-up performance. In BH there was a strong, widely used and frequently tracked performance regime that stressed crime detection. This was not found in BL. BH emphasised detection as a key police activity, whereas 'quality of life' issues – in practice

the prioritisation of locally defined issues and problem-solving efforts to address them – were paramount in BL. This difference was reflected both in orientation, and in the disposition of available resources. In BL, moreover, there was a great deal of officer discretion in crime investigation, although this was not underpinned by experience, skill or supervision. In contrast, in BH a broadly procedural approach was taken, offering much less scope for individual officer discretion.

Third, investigative activity varied across the BCUs in ways that may partly explain detection rate differences. The pattern of response to incidents varied: in BH an initial response was made in 98 per cent of domestic burglaries and 62 per cent of thefts from motor vehicles compared to 89 per cent and 39 per cent for BL (weighted data). There are some indications of somewhat more streamlined investigation in BH. For example, in BH officers got to the scene of the crime on average more quickly. In the case of attended thefts from motor vehicles 26 per cent were attended within ten minutes of the incident report, whereas in BL only ten per cent were attended during this time period. The corresponding figures for domestic burglary were eight per cent and six per cent. SOCOs attended domestic burglary scenes at a higher rate in BH (100%) than BL (75%), and obtained better returns in terms of DNA hits (3.4% vs. 2.2%), although for fingerprint identifications the tables were turned (2% vs. 4.3%). Overall, it appears that in BH more effort was made to detect the sampled crimes, especially domestic burglary. TICs were pursued more vigorously in BH than in BL, for example in BH, TICs served to increase the overall detection rate for domestic burglary by fully ten percentage points, whereas in BL they increased the rate by less than one point.

Of course, detection rate differences may also partly reflect contrasts in the nature of the sampled crimes committed in these two BCUs, or in their community contexts. It was not possible, however, in this research to discern any that stood out as being potentially significant.

Comparison C: the 'diverse city' BCUs

As with Family 4, in the Family 10 BCUs in general differences in detection rates were maintained for the sampled crime-types. CH outperformed CL consistently in terms of sanction detections (excluding TICs), and in terms of TICs achieved as a percentage of all crime. However CH – the better performer overall – had rather lower ratios of indirect to direct detections. As in comparison B, there appear to be a range of factors that contributed to these differences.

First, as with the Family 4 pair of BCUs (as shown in Table 2.5) the number of volume crimes per officer differed substantially. There were over 70 per cent more in CL. This again suggests that fewer resources could have been available for investigation.

Second, in various ways the regime in CH was conducive to achieving higher rates of detection than CL. In CH detection was prioritised, whereas in CL crime reduction was deemed equally important. In CH visible leadership promoted a 'can do' culture with no excuse for poor performance. There was a well-embedded and accepted performance monitoring culture, with COMPSTAT-style performance monitoring at sector-level and above. This was not evident in the same way in CL, where performance management was present but had recently been imposed as a result of underachievement – and was resented. CL lies within a force within which the Street Crime Initiative was operating at the time. This had led to the reassignment of the most experienced officers to the robbery team. In contrast to CL, in CH cases were routinely allocated to CID for investigation, and hence had the benefit of their expertise. Though both CH and CL adopted broadly procedural approaches to investigation, that discretion which remained appeared to be rather less well-exercised in CL than in CH. Moreover, though in CH the overall approach was procedural with cases passed through specialist units, at each stage substantial professional discretion was exercised. Both CH and CL had units reviewing the quality of initial investigation and making decisions about case finalisation, but in CH the unit's work was broadly accepted and respected, whereas in CL more doubts were expressed about it, and about the competence of its staff.

Thirdly, there were differences in investigative activity. In CL call handlers felt they lacked the training needed to make good decisions on which cases to assign officers. Officers felt that this had led to some mistaken decisions about initial scene attendance priorities. This, in turn, had eaten into the time they would otherwise have had to deal with 'legitimate' calls. Although only attending just over one in ten TOMVs, CH attended three-quarters of TOMVs with strong initial leads, suggesting effective targeting.

Turning to the work of SOCOs, in relation to theft from motor vehicles (as shown in Table 2.3) a much higher proportion of vehicles were examined in CH as in CL: 27.8 per cent vs. 5.2 per cent. In relation to all cases of theft from motor vehicles these differing patterns of SOCO activity were associated with fingerprint identifications in 3.7 per cent and DNA hits in 0.7 per cent of CH cases compared, respectively, to 0.7 per cent fingerprint identifications and 0.4 per cent DNA hits in CL.

Finally, both CH and CL appear to have robust relationships with the communities they serve. For example, most victims of burglary and of vehicle crime were prepared to support prosecutions. However, CL went through a major reorganisation in 2003: two BCUs were merged and an additional sector with a high rate of burglary came under the new BCU's purview. Therefore, the five stations within the BCU were perceived to be disconnected from one another.

Comparison D: the 'town and surrounding country' BCUs

The general patterns of difference in detection remained similar between DH and DL. There was however a fairly large drop in the direct detection rate for theft from motor vehicles in DH (from 8.9% to 4.6%) and in the TIC detection rate for theft from motor vehicles in DL (from 6.1% to 4.2%), as well as quite a large rise in the direct detection rate for theft of motor vehicles in DL (from 5.8% to 9%).

It should be stressed that, in relation to the numbers of police officers available to them, both DH and DL had higher than expected detection rates. DL cannot, in this sense, be considered a poor performer. It did, however, perform less well than DH in terms of direct detections (in particular of thefts of motor vehicles), and in terms of the achievement of TICs (for both theft of and theft from motor vehicles). Nationally, DH's overall detection rates have been amongst the highest found in any BCU.

The resources available to DH and DL were similar, at least as measured by volume crimes per police officer within the BCU (as shown in Table 2.7). In fact, overall DH had slightly more volume offences per officer than DL (23 as against 20.3). DL, however, had somewhat fewer officers in relation to the population served, with about 730 residents per officer compared to 440 in DH. Overall, resource differences did not in any obvious way seem to comprise a significant part of the explanation for variations in rates of detection.

The regimes in DH and DL – although both stressed performance and had vigorous performance management regimes – differed substantially in ways that are likely to be important to variations in detection performance. In DH detection unambiguously comprised the main priority. DH also worked hard at maintaining good community relations, in part in the interests in keeping the community on its side for investigative purposes. DH had a strong and accepted performance regime operating at all levels. Officers saw themselves, and were treated, as autonomous professionals owning and seeing through cases allocated to them, although their work was supervised and they were accountable for outcome achievement. In other words, the discretionary model prevailed, though the discretion was supervised and outcomes tracked. Achievement in DH was recognised and morale was high.

In DL, investigation was also stressed, though this was undertaken in the interests of, and organised around, crime reduction rather than to achieve detections as ends in themselves. DL adopted a strongly procedural approach, with rules for screening and conducting initial enquiries. Cases were not owned by individuals but instead one specialist with responsibility for one stage passed the cases over to another specialist group with responsibility for another stage. Investigation therefore was fragmented. Officers felt frustrated at this, and morale was low.

In both DH and DL, TICs played a larger part than in other BCUs. Each had higher rates of detection through TICs, than otherwise, for cases of theft from a motor vehicle. This was also the case for thefts of a motor vehicle for DH, though not for DL. In DH it is clear that TICs were pursued more vigorously than in any other BCU included in this study.

The approach to investigation and investigative activities varied across DH and DL. In DH the emphasis was on investigating every case. Even if, in the event, practice fell short of this, the policy in DH was that every case should be attended, a statement should be taken for every case, and every case should be investigated. There was, thus, no initial screening out of cases. They were treated as detectable until shown not to be. In DL, in contrast, there was a high level of selectivity. Much was screened out and screened out as early as possible, unless there were reasons to believe the case to be detectable. As noted in Chapter 6, the extent of screening for attendance at TOMVs appears to have resulted in more than half of cases with strong initial leads in DL not receiving an initial response.

The emphasis on physical evidence differed. In DL physical evidence was stressed, though the principle of selectivity remained in terms of scenes attended and material collected. The overall approach in DH was to keep 'the detection hopper' as open as possible for as long as possible, to pursue and take advantage of any sources of any information that might be available. A specific officer was also allocated to make best use of whatever intelligence, leads or evidence that could be gleaned. The approach in DL, in contrast, was to funnel cases sharply and early – to eliminate as soon as possible, and as systematically as possible, unpromising cases and lines of enquiry, and to concentrate on those that seemed most likely to yield successful outcomes. Specialist teams would conduct whatever work was needed quickly and to a technically competent standard, as defined by set procedures.

These different approaches led to relatively high rates of detection in both BCUs but to higher ones in DH. In DL the division of responsibilities for different stages in processing and investigating cases was deemed to have created fragmentation. The consequences were believed to include:

- discontinuity – as cases were passed on;
- inefficiency – as the case had to be relearned at each stage;
- the pursuit of ends that related to the specific responsibilities and performance objectives of the stage, rather than the overall investigation of crime – as efforts were made to appear good;
- the de-skilling of officers – as expertise was developed in only particular activities; and

- low morale – as officers became disconnected from one another and from the overall purposes of policing and crime investigation.

The communities served in DH and DL differ in significant ways. DH is large in area but with a single, large population centre. Culturally, the population is fairly stable and homogeneous. The resident population trust and have high confidence in the police, as did the police in the community. In DL, in contrast, although the geographical area covered is similar the population is spread across several towns. The population is quite fluid and is ethnically and culturally heterogeneous. There was said to be a high level of mistrust in the police by the community, and the police also mistrusted the community. In these circumstances the public were more helpful in passing on information in DH than in DL, and played a larger part in assisting the process of detection.

The nature of the community in DH made the approach adopted there more practicable than might have been the case in DL. In DH the community, and the police relationship with it, made it much more likely that there would be a strong flow of intelligence in which to root efforts to detect crimes.

Beyond intra-family comparisons

The preceding discussion compares, and tries to explain differences in, detection rates for each pair of BCUs from the same family. This comparative and explanatory exercise has been useful in drawing out some of the factors that may contribute to higher or lower rates of detection, assuming that membership of the same family offers a roughly level playing-field for solving crimes. The attributes defining families do not, however, necessarily include all that is relevant to expected detection rates. For example:

- AH, AL, BH, and CL are all parts of large conurbations with potential problems for detection springing from difficulties where offenders cross borders.
- BL, CH and DH all comprise quite large towns and cities, with substantial variations in the nature of the communities served.
- DL is the only BCU made up of a variety of mid-sized towns.
- AH, AL and DL are all found in the south-east with strong communications networks – allowing for substantial offender mobility.
- CH and DH are neighbours and share some historical and cultural assumptions, although they are in different forces.

The eight BCUs are within seven different forces, which respond to and stress the detection of volume property crimes to differing degrees. The socio-demographic variables used to differentiate families comprise a rather limited basis for identifying suites of BCUs whose rates of detection would otherwise be expected to be similar.

This chapter turns now to a discussion of some issues of policy and practice across all eight BCUs, to explore their significance for variations in detection rate.

Links between performance and the 'procedural' and 'discretionary' styles

The comparisons of pairs of BCUs make clear that in one the discretionary style has led to higher rates of detection (DH over DL) and in another to lower rates of detection (BL compared to BH). In a third pair a shared, primarily procedural approach was associated with quite similar rates of detection (AH and AL). The fourth pair shared largely procedural approaches that were associated with high levels of detection in one (CH) but low rates in the other (CL). It is clear from this that neither discretionary nor procedural approaches guarantee high rates of detection.

Context and implementation are important in shaping the way in which either approach works to produce variations in rates of detection. Success with the discretionary approach turns on the availability of competent, experienced and well-motivated officers who are well supervised by more senior officers, and whose work is monitored to ensure that discretion is being applied wisely. Success with the procedural approach clearly depends on strong and appropriate procedures, and again on supervision to ensure that the procedures are in fact being followed properly. The discretionary approach, requiring strong people skills, would appear to be most suitable where communities are potentially co-operative in enquiries and members can be drawn into assisting in the investigative processes.

It seems likely that there is a symbiotic relationship between the long-standing 'community oriented' approach to policing adopted in DH's parent force and its discretionary approach to officer decision-making in detections, which appears so effective. DH's force philosophy includes 'listening to victims' and 'being in touch with the public.' Interviewees consistently praised this 'public service approach to policing.' This is expressed in part in the policy of taking a crime statement from every victim. The DH police felt they had good intelligence because they 'pay attention to crime victims'. As one DCI put it, 'personal contact is worth its weight in gold'. DH is, thus, not necessarily simply benefiting from a co-operative community; it is acting in ways likely to foster the development of an information-providing community.

Where some of the conditions for the discretionary approach are absent and where officers are inexperienced, it seems likely that a well-managed and implemented procedural approach will be more fruitful overall. However, policing in this way is also liable to sustain a disconnected relationship with the community. In DL, which employed the procedural approach most fully, it was commented that, 'for incidents of volume crime, people do not want to get involved...The police often have to be persuasive just to get basic information such as statements and other evidence... Officers often feel unappreciated by members of the community and claim that society has become increasingly anti-police.' The precise relationship between procedural/discretionary approaches and communities is hard to unravel. The nature of the relationship between the police and the community may well influence the adoption of a particular style of investigative practice, or alternatively, the adoption of such an approach may actually foster the relationship with the community.

Perceptions of what inhibit effective investigations

Even though the main focus of this chapter of the report has been on explaining high and low detection rates in different BCUs, there was a widespread sense – even in the more successful of the BCUs – that there was scope to do better. In some cases specific local barriers were mentioned. However, during the 'process mapping' part of the study there were other themes that were repeatedly and spontaneously mentioned in interviews with police officers, both in BCUs that were achieving high detection rates and in those with lower detection rates. The data at hand do not generally allow the current research to check these hypotheses, but they are presented here as the reflections of informed practitioners. At face value, most also enjoy substantial plausibility. The key inhibiting factors are presented here under the four main headings used to look at BCU performance differences.

Resources

- Lack of officer time to conduct adequate initial investigations at the time the offence was reported. Many of those interviewed stated that officers were failing to conduct sufficiently thorough initial enquiries because of pressure to complete them quickly. As one put it, 'the focus is on quantity rather than quality'. Another said, 'we have time only to ask quick questions... We feel we're on a conveyor belt'. The cohort study, however, found evidence that officers were called away to other jobs in less than five per cent of cases whilst they were conducting initial enquiries, and the percentages were no different for detected and undetected cases. The perception that there is insufficient time to conduct enquiries adequately (because

of other demands) may be more important than the reality. Interviewees also pointed out that many crimes were screened out prior to officer attendance, with the consequence that there was then very little chance of direct detection.

- Officers early in their careers lacking experience in crime investigation. This was the most commonly mentioned obstacle in both high and low detection BCUs. The officers undertaking the initial investigations in high volume crimes are often new recruits with little experience on which to draw. For example, in one BCU, where there had been a staff recruitment drive, over half the front-line officers were probationers. While this meant little front-line experience of dealing with crimes and identifying lines of enquiry, it also had consequences in the later stages of an investigation. Inexperienced officers were thought to be especially poor at interviewing suspects. One interviewee even observed that, 'they were easily bullied by legal representatives'. Pressures of time and inexperience were also said to result in poorly kept records. Record keeping is particularly crucial in the context of procedural approaches, where cases are passed on for further processing and decision-making by others.
- Poorly integrated IT systems, unable to find linkages between offences, people and stages in investigation. This problem was mentioned both in relatively high and relatively low detection rate BCUs. It was repeatedly stated that IT systems would not 'talk to each other', and that as a consequence tracking cases, comparing cases, and identifying potential series was very difficult. Even in one high-performing BCU, IT systems were referred to as a 'hodgepodge'. Some of the technical problems in conducting this research project reflect the reality of disconnected IT systems. Linking material relating to a single case, but coming from different computer systems, proved difficult and frustrating.

Regime

- Lack of adequate supervision for front-line officers conducting initial enquiries. This was frequently mentioned, but more often in BCUs performing relatively poorly. In the context of inexperienced front-line officers, the need for – but lack of – active supervision by experienced sergeants was repeatedly stressed, to ensure the high quality initial investigation that is crucial for follow-up work. In some BCUs no-one was regularly checking on work, correcting errors or advising on improvement. In one BCU, the target was that only 25 per cent of reports would be looked at by a supervising team sergeant and it was not clear that even this was being achieved. In another, supervision of investigative work was effectively provided by an understaffed and distant CMU, unable to directly foster learning and development amongst front-line officers.

- BCU prioritisation of issues other than volume detection. In some BCUs it was acknowledged that the main policing focus was on issues other than the detection of crime and that this affected rates of detection. For example, where crime reduction or attention to local community concerns was stressed, even though this clearly does not rule out detection of volume crime, it was evidently not necessarily prioritised in the same way as in BCUs where detection was deemed paramount.
- Discontinuity/lack of ownership/fragmentation of the investigation process. Even where BCUs with a procedural approach appeared to be outperforming those where there was greater officer discretion, there was some disquiet that passing cases from specialist unit to specialist unit led to discontinuity and fewer successful outcomes than might otherwise have been achieved. Strong personal, as well as formal, contacts were thought helpful in passing cases on. In one BCU, for example, it was observed that 'the physical separation of the detective team from the shift officers means that informal channels of information and intelligence are lost'. Furthermore this problem was specific to volume crimes: no BCU would encourage taking this type of approach to serious/personal crimes. It appeared to be viewed as 'a necessary evil'. It was also believed in some BCUs, that a side-effect of fragmenting the process of investigation, which was itself a reflection of officer inexperience and lack of skills, was to further erode general skills. This would then reduce the supply of officers capable of overseeing a full investigation. The development of specialist units – either by crime type or responsible for different stages in the investigative process – was seen by some to have unintentionally contributed to this deskilling. Finally fragmentation was associated, by some, with low morale – as officers did not see cases through to their conclusion, which reduced the chance of positive feedback when they were successful.

Although the whole process was not mentioned by any interviewee, piecing together separate comments made, the research team was left with the impression that spirals of increasing specialisation and fragmentation were possible, with potentially damaging consequences:

- high demand, which leads to
- selectivity in investigation, and division of labour in the conduct of tasks in the interests of efficiency, which contributes to
- loss of generalised skills, which suggests
- the need for further specialisation, one result of which is that
- sight is lost of the overall investigative process and its outcomes, which produces

- loss of morale, which is associated with
- high staff turnover, which leads to
- further deterioration of the skills base, which underpins arguments for
- the need for specialisation...
- Focus on crime type rather than crime detectability. Even in BCUs where detection was prioritised, specific crime types – other than the volume crime types discussed in this report – were in some cases deemed more important. This was the case, in particular, in BCUs falling in forces where the Street Crime Initiative was operating, where interviewees felt that investigative resources had been diverted from burglary and vehicle crime. In more general terms, the emphasis on crime types as a criterion for allocation of investigative resources was thought by interviewees in some BCUs to have produced fewer crime detections overall than might have been achieved had apparent detectability been used as a basis for determining where to put effort. Given that offenders appear more often to be generalists than specialists, it might then be argued that the same individuals might more effectively be brought to justice for their easy-to-detect offences than for specific offence-types that were being given priority. Nevertheless, it is clear that if resources will not stretch to giving detailed attention to all reported offences, focusing on more serious crimes or crimes of public interest, or crimes that are being emphasised in Home Office performance targets, has self-evident attractions to BCU commanders. Moreover, where resources for investigation are very stretched, it may become necessary to concentrate efforts at detection both on priority offences and, amongst these, on those that look most detectable. In practice, a difficult balance often has to be struck between taking advantage of apparently straightforward opportunities for detection whatever the crime, and concentrating investigative effort on priority offence types.

Practices

- Call handlers passing on too much unproductive work. Call handlers are important in deciding how calls will be dealt with in the first instance. In some BCUs, interviewees felt officers were being sent unnecessarily to cases where attendance was unproductive. This was explained in terms of a) call-handler inexperience and hence inability to sort and sift calls for different forms of response; b) call-handler lack of confidence (or authority) to close cases that could not be directly detected early; and c) central call-handler ignorance of local areas and their inability to make judgements about how cases might best be dealt with in different contexts.

- The failure of CMUs to make sound judgements about case closure. CMUs, where they exist, are critical to decisions about case closure, case allocation, and continuation with case investigation. Their staffing is, therefore, important. Civilian staff in one local CMU were said to lack the experience and expertise on which to base good judgements when they screened cases. In another BCU, the CMU was thought to be understaffed, without sufficient people properly to consider each case on its merits. Where the CMU was centralised, its members were believed by some to lack the local street knowledge necessary to make informed decisions. As an organisational device the presence of a CMU was generally seen as a mixed blessing. In one BCU it was criticised for its contribution to a 'production line' rather than 'ownership' style of policing. More positively, it was also seen to contribute to consistency of decision-making.

Case/community attributes

- Solicitors' advice to clients that they should not answer questions or ask for TICs. Firms of lawyers, it was believed, will often automatically advise their clients, even when known offenders, not to answer questions and not to ask for TICs, even when it may be in suspects' longer-term interests to do so. As seen earlier, the cohort study found, however, only a weak relationship between solicitor presence when suspects were interviewed and TICs.

It should also be stressed that, though the focus here has been on why, within each family, one of the selected BCUs had relatively high and the other relatively lower detection rates, there were areas where the relatively less-well performing BCU was nevertheless doing well, and where the BCUs performing well had clear weaknesses. For example, DL had high DNA hit rates, whilst attending fewer scenes than DH. Both the selection of cases for attendance and the scene examination appeared to be efficient and effective. By the same token, in CH much higher rates of scene attendance, in comparison to CL, were not matched by significantly better DNA and fingerprint identification rates. It was conceded that taking CJ samples to put on the DNA database and collecting ten prints from arrestees was often overlooked in CH.

There is probably not a single BCU where there is no scope for improvement (but neither is there a clear performance panacea to fit every force/BCU). Furthermore, the complex way in which investigations have to be undertaken means that higher detection rates are unlikely to be achieved by simply improving one aspect of the investigative process.

Perceptions of what enables effective investigation

Those spoken to, both in high and low detection BCUs, tended to focus on points where they might do better rather than on what they thought they were doing well. This, in itself, may indicate a commendable commitment to continuous improvement, especially amongst those doing relatively well. But interviews also sought to establish sources of success. There was no real pattern to these, when they were mentioned, but the following points were referred to:

- An interested and knowledgeable management, who are known to be concerned about detection and who show some grasp of the issues facing those investigating crime.
- A results-driven performance regime which makes clear what is expected of officers in terms of volume crime detection.
- Clear, wide-ranging and detailed guidance on what action to take in investigating a volume crime.
- Adaptability, professionalism and a 'can-do' attitude amongst officers in their approach to work, making the best of the conditions they face in investigating reported crimes.
- A focus on quality rather than quantity in investigative activity: in other words that a smaller number of more thorough investigations is deemed to yield more than a large number of cursory ones.

'Facilitating factors' for high detection rates

Table 8.1 attempts to distil what emerge as promising generic conditions for high BCU detection rates, drawing both on findings about differences between high and low detection BCUs and on interviewee views about what inhibits and enables detection. Points are made under four headings: 'direction,' 'oversight,' 'resources' and 'activity.' The first two are components of 'regime' as discussed earlier in the chapter. The others follow directly other previously used headings. 'Case variations and context,' however, is largely omitted at this stage, as matters over which local police have less control. That said, general policing style may foster or inhibit trust within the community – with consequences for the flow of information and co-operation of witnesses. This is touched on in the first column where there is reference to the need for a fit between the approach to detection and other police functions and activities, which may or may not create high levels of community confidence and trust. The first point, under 'Resources,' refers to the adequacy of the level provided.

This is again a matter over which there may be little local control. It is stated baldly here, simply because it emerges in the research reported here and in its companion study (Tilley and Burrows, 2005).

Apart from serving a summary function, the purpose of Table 8.1 is to emphasise the connectedness of, and mutual reinforcement between, the attributes that seem to foster relatively high rates of detection. The constituent elements of 'direction' fit with one another and with 'oversight,' 'resources' and 'activity'. There is provision for virtuous feedback mechanisms 'up' and 'down' and 'across' tiers of management and function. Strong performance is rewarded and weaknesses are corrected where necessary. Collective commitment is fostered through mutual accountability. The approach is well-resourced, informed and joined up.

Summary

- The differences in the detection rates of the four 'paired' BCUs under review at the time of the cohort review seem to be explained by a combination of factors.
In comparison A: Detection rate differences in AH and AL were marked when the BCUs were selected, but had converged by the time of the cohort review.
In comparison B: The difference between BH and BL's detection rates were maintained during the study. Three factors appear to explain the difference in detection rates. First, BL had close to two and half times as many crimes per officer as BH. Secondly, unlike BL, BH had a strong and frequently tracked performance regime that stressed detection. Thirdly, attendance rates for first response officers in BH were higher for all the sample crimes than in BL and this was also reflected in higher SOCO attendance rates.
In comparison C: As with comparison group B, the key differences between CH and CL centred around resources, a focus on detections and attendance. CL had over 70 per cent more volume crimes per officer than CH. Secondly, in CH there was a strong performance culture within which detections were prioritised. Finally, on attendance decisions weaknesses were identified in allocation of resources through call handling in CL; CH on the other hand appeared to be effective at targeting its response officers. In addition, forensic activity and forensic ident were better in CH.
In comparison D: unlike comparison groups B and C, resources in terms of volume crime per officer were similar in the two BCUs. The main differences centred on the performance priorities and attendance. While both had strong performance regimes in place, DH had an unambiguous focus on detections. In

Table 8.1: A summary of conditions facilitating detection

Direction	Oversight	Resources	Activity
Active, credible and informed leadership stressing detection and showing understanding of how it can be achieved.	Informed management and oversight of the whole process of investigation, with explanations for key decisions, notably on screening and closure.	Allocation of sufficient staff	No or limited screening or targeted screening of cases for their solvability at various stages.
An appropriate outcome-focused performance management regime covering all involved in detection at all organisational levels, with frequent feedback.	Regular and frequent face-to-face as well as paper-based supervision of officers involved in the conduct of investigations, with feedback on activity.	Close working of staff with different investigative responsibilities (e.g. CID and response officers).	Initial allocation of officers to attend.
A well-understood policing philosophy stressing detection and/or its linkages to other functions and activities in police work, in particular community-focused and problem-oriented policing.	Strong, regular case-related formal and informal communications between supervisory staff and front-line staff and between front-line staff with different roles in investigation (e.g. response officers; CID and SOCOs).	Development of staff with a strong end-to-end understanding of the investigative process and their part in it.	Allocation for SOCO attendance/examination
Correct criteria for selecting crimes for investigation and for case closure.		Staff with high levels of investigative skills (for example in interviewing witnesses, victims and suspects; determination of MOs, recording, scene preservation and examination), developed in part by exposure to existing skilled practitioners.	Pursuit of TICs, particularly through the involvement of CID.
Written guidelines about screening and investigative action with supervised discretion to overrule them in specific cases.		Enthusiastic staff with a strong individual and collective commitment to ethical achievement of crime detection, whatever their role in investigation or other policing functions.	Quick response to recent crimes/crimes in progress.
Inculcation of culture of co-operation, accountability, advice-taking and giving and use of smart discretion in investigation.		Integrated IT systems that are capable of creating offence and person linkages, and which enable specific cases or cohorts of cases easily to be tracked.	Collection of all arrestee CJ DNA samples and fingerprints
Clear direction on desirability of securing TICs.			Use of guidelines about normal action at crime scenes.

DL detections were seen more as a means of achieving crime reduction. In DH, the policy was that every case should be attended and treated as detectable until shown not to be; DL attended on a much more selective basis.

DH and DL most clearly illustrated the difference between a 'procedural model' (DL) with rules for screening and initial enquiries and a 'discretionary model' (DH) where officers were treated as autonomous professionals who owned the cases allocated to them.

- Two themes emerge with some consistency:
Resources – in terms of numbers of officers in relation to numbers of offences, in terms of experience and expertise, and in terms of supervisory capacity – appear to be related to rates of detection. An allied point (because police areas with comparatively high resources can choose to focus them on non-investigative activities, and vice versa) is that selective attendance – by police officers and SOCOs - is associated with lower rates of detection.
Regimes emphasising the importance of detection detect at a higher rate than those attaching less importance to it. Performance management seems to be necessary but not sufficient for strong performance in relation to crime investigation. Where imposed or applied in insensitive ways it can discourage officers and sap efforts
- Detection rates can be changed, even over short time periods. The experience of comparison A, where former differences in detection rates had largely disappeared by the time of the research, shows that if external pressure is applied to concentrate attention on a particular issue, performance improves.
- BCU variations in performance are a function of four main factors: resources; regimes; investigative practices; and opportunities arising from case and community attributes. There is no single key to high or low performance: even strong BCUs have weaknesses and some relatively weak BCUs have some investigatory strengths.
- Neither the discretionary style nor the procedural style can guarantee higher rates of detection. Success with the discretionary approach depends on the availability of experienced and well motivated officers with good supervision; success with the procedural approach depends on strong and effective procedures backed up by supervision.
- The precise relationship between procedural/discretionary approaches and communities is hard to unravel. The nature of the relationship between the police and the community served may well influence the adoption of a particular style of investigative practice, or alternatively, the adoption of such an approach may actually foster the relationship with the community.

- Where some of the conditions for the discretionary approach are absent it seems that a well managed and implemented procedural approach will be more fruitful.
- In addition to the points highlighted above, the following issues were perceived by interviewees to inhibit effective investigations:
 - Lack of officer time to conduct initial investigations.
 - A high proportion of response officers with limited experience of crime investigation.
 - Poorly integrated IT systems unable to find linkages between offences, people and stages in investigations.
 - Inadequate supervision of front-line officers conducting initial enquiries.
 - Discontinuity and a lack of ownership within the investigative process.
 - Focus on crime type rather than crime detectability.
 - Call handlers passing on too much unproductive work.
 - The failure of Crime Management Units to make sound judgements about case closure.

9. **Lessons learnt: the implications for reducing attrition in the investigative process**

The questions addressed by the research reported here – on the one hand, ‘what solves volume crime’ and, on the other, ‘why is the attrition of volume crime cases so high’ – are broad ranging, but were recognised from the start of the research to be complex and multi-faceted. These questions have not been subject to detailed empirical investigation in the UK for many years, and then not on any large scale. The data gathering exercise undertaken (principally a cohort review of some 3,000 cases ‘from cradle to grave’) sought to begin to fill this lacuna. Every police force collects and stores data in different ways, and to different levels of completeness, and this meant the picture obtained was not comprehensive in its coverage. Moreover, reflecting the intricacies of the data available on detections (at force and BCU level), the research design comprised many dimensions. It took four pairs of BCUs with different sanction detection rates, and focused on a different combination of volume crime offences in each, thus producing sixteen different ‘profiles’ in the form of eight paired comparisons.

The previous sections have sought to represent the major findings of the research – both in relation to the individual comparisons, and in relation to major themes. They suggest that the explanation for variations in detection rates can be typically found in looking at four dimensions: the cases presented for investigation, the regime operated in each BCU, the resources available to them to respond, and the activities they undertake. This final chapter first summarises some of the ‘headline’ messages of the research, and then seeks to draw together some of the wider implications of these findings.

Key findings

A key observation made at several points in this report – namely that the investigation of volume crime has long proved problematical for the police, as few cases offer much in the way of leads to follow up – deserves restating here. This reality, coupled with the sheer frequency with which such offences are committed, is of course the root cause of attrition. Put simply, the police are forced on a daily basis to limit their investigations by the pressure to deal with the new cases that are presented to them. This explanation is not sufficient in itself – were it so, it would for example be logical to expect the detection rates for volume crime to have increased in response to the recent sustained decrease in the incidence of

volume crime – but it presents an important backdrop, and serves as a reminder that it is not feasible to expect overall detection rates for volume crimes ever to come close to those achieved for personal crimes.

It is also worth noting that investigative efforts are very much driven by the context of the specific cases and the force environment. Across the four pairs of BCUs there were substantial variations in terms, for example, of their size, population density, settlement type and community characteristics.

The more particular messages derived from this research are summarised at the end of each chapter of the report and do not warrant rehearsing in full again here, but there is some value in highlighting the ‘headlines’. Focusing first on the generic issues about the context in which investigations are carried out, and then seeking to move chronologically through the course of a typical investigation, arguably the key points are as follows.

Investigative policies and practices

- The priority attached to crime detection, the approaches adopted and the methods of management used in relation to volume crime detection differed in many respects that appear to be related to variations in detection rate.
- The balance each police area chooses to adopt between obtaining investigative effectiveness (i.e. detections in all possible circumstances) and investigative efficiency (i.e. limiting follow up work to those cases with potential only: in the interest of economy and meeting other demands) is critical. So, too, is the value they attach to achieving investigative outcomes, as opposed to prioritising crime reduction.
- Higher volume crime detection rates were generally associated with management attaching importance to detection; the application of a performance management regime attending to detection; officer ‘ownership’ of cases through the investigative process; active front-line officer supervision, police officer and SOCO attendance at – and active investigation of – a larger proportion of cases; and a greater emphasis on obtaining TICs.
- Both initial response officer and SOCO attendance rates were found to vary markedly, particularly for vehicle crimes. However, a low attendance rate by initial response officers was not necessarily associated with a correspondingly low attendance rate for SOCOs.

The investigative process and attrition

- Not all BCUs apply the same resources and effort to investigating volume crime and cases are often screened out at some stage of the investigation. Three distinct approaches to screening seem to emerge: that of screening out undetectable cases before responding (unless crimes are in progress); that of screening after responding; and policies of not screening at all, except for case finalisation. The first approach, of course, represents the position of a police unit most concerned with maximising investigative efficiency and the latter that of the police unit more heavily focused on achieving investigative effectiveness.
- Burglary dwelling cases are accorded a higher priority than others in all BCUs, reflecting the importance attached to victim reassurance in relation to this crime.

Linking suspects to offences

- The large majority of 'first links' between a suspect and a crime appear to be associated with the initial enquiries. They comprise those where suspects are caught directly as a result of the initial police investigation (which accounted for just over a half of all direct detections) and those where the offender left some trace of his/her presence (which account for just under a quarter).
- Looking in more detail at direct detections derived from initial police investigations, it is evident that while initial responses do lead to suspects being 'caught red-handed' in 22 per cent of these cases, these are dwarfed by those where victims and witnesses are present, and able to provide critical leads (in just under four-fifths of cases).
- There is no consistent evidence to support the assertion that BCUs which achieve a higher proportion of forensic matches also have a high detection rate: this indicates that that a strong forensic performance is no guarantee of higher investigative performance per se. However, the research found large variations in scene attendance rates for Scenes of Crime Officer both by crime type and BCU. Both the DNA hit rate and rate of fingerprint identifications was closely related to attendance rates for non-domestic burglary, to theft of motor vehicles and to theft from motor vehicles. The rate of identifications for domestic burglary, however, was not positively related to scene attendance rates for either.
- Attrition is most severe in identifying a suspect – in 82 per cent of cases no suspect was identified. Once a suspect has been named or identified, further attrition occurs, but at a lower rate. However, because of the amount of time that has already been expended in naming or identifying a suspect, every reduction thereafter can be seen to represent a considerable 'lost opportunity'.

Detecting volume crime

- Looking at direct detections alone, the principal information enabling the offence to be detected was 'suspect caught close/at scene' and physical evidence. These two categories accounted for 34 per cent and 27 per cent of direct detections respectively.
- The number of leads in a case proved to be a reasonable predictor of detection. This effect was more pronounced when considering different sources by which a suspect's name could be obtained. The best predictor proved to be multiple leads – that is, the corroboration of evidence by different sources.
- Whether an offender was caught at the scene (or not) proved to be the factor that had the greatest impact of all factors, and by a wide margin. However, cases with this characteristic are rare. Forensic evidence increased the odds of a detection most for vehicle crime. For burglary dwelling cases, sources of information giving a name had a greater impact.

Identifying solvable cases

- Cases with strong initial leads – where a suspect was detained at the scene; a suspect's name was given to control room staff; an offender was reported entering/leaving the building or vehicle; or a vehicle or suspect description provided – accounted for 17 per cent of the sample.
- The relationship between overall attendance rates and attendance at offences with strong initial leads is complex. One BCU had very high levels of screening out for theft of motor vehicle cases and failed to attend more than half of such cases with strong initial leads. By contrast, a high detection rate BCU succeeded in combining a high attendance rate at strong initial lead cases with relatively low overall attendance, suggesting that they had an effective screening policy in place.
- Strong initial leads do not guarantee detections. Many suspects identified by witnesses are either not implicated, or their involvement cannot be proved. Suspects can have disappeared in minutes. In other words, the presence of strong initial leads does not offer certainty of detection.
- Conversely, detected cases do not entirely comprise those where potential solvability can be established in advance. Those cases with no strong leads or forensic clues that nevertheless received an initial response accounted for 20 per cent of all direct detections.
- Two key themes emerge around an examination of 'missed opportunities' in detections. Consistently the most common is the failure to identify a suspect through forensic linking, either due to their absence from the relevant database or

claimed legitimate access. The second most common theme appears to relate to the quality of evidence available.

Indirect (TIC) detections

- Looking at indirect detections, the pattern is generally for the BCUs with higher rates of overall detection also to have higher ratios of TICs to direct detections, suggesting that greater use of TICs contributes to their higher overall sanction detection rates.
- Generally those BCUs with higher detection rates overall displayed both a larger proportion of cases directly detected, and higher TIC ratios from those detected directly. In short, a strong orientation to detection often includes both attention to direct detection and efforts to achieve TICs from cases directly detected.
- Where CID officers were involved in interviewing suspects the proportion of cases detected by TIC increased substantially, although it is unclear whether this is due to the nature of cases allocated to them or as a result of their specialist skills.

Explaining differences in detection rates

Although no single key to high or low detection performance was found – even strong BCUs have weaknesses and some relatively weak BCUs have some investigatory strengths – the following general factors were associated with higher volume crime detection rates:

- Management attaching importance to detection; the application of a performance management regime attending to detection; officer ‘ownership’ of cases through the investigative process; active front-line officer supervision, police officer and SOCO attendance at – and active investigation of – a larger proportion of cases; and a greater emphasis on obtaining TICs.
- Resources – in terms of numbers of officers in relation to numbers of offences, in terms of experience and expertise, and in terms of supervisory capacity – appear to be related to rates of detection. An allied point is that selective attendance – by police officers and SOCOs – is associated with lower rates of detection.

In terms of BCU pairs, leaving aside comparison group A, which saw a convergence in its detection rates, the following general observations can be made:

- Groups B, C and D all had identifiable differences in both their overall focus on detections against other police priorities and, linked to this, differences in their

attendance rates and the effectiveness of their targeting of resources on 'solvable' crimes. In all three of these pairs, the higher detection rate BCUs combined strong performance regimes with a focus on detections. The lower detection rate BCUs either had weaker performance regimes in place or focused on other policing priorities, sometimes alongside detections. The key finding from comparison group A was that the introduction of a stronger focus on detection could bring about an increase in detection rates.

- The other broadly consistent finding relates to attendance both by response officers and SOCOs. Highly selective attendance regimes could influence the ability to respond well to offences with initial leads. In one BCU that screened out the vast majority of theft of vehicle cases for initial police response, more than half of cases with strong initial leads failed to be attended. Elsewhere there was evidence of more effective screening: one high detection rate BCU attended scenes at a relatively low rate but still attended a high proportion of its 'solvable' cases.
- High detection rate BCUs in two of the three comparison groups (B and C) also had lower numbers of crimes per officer. Overall resources clearly have an influence on detection rates, but the deployment of resources was also influential. For comparison group D this measure of resources was similar for both the high and low detection rate BCUs and it would appear that the detections focus and levels of investigative activity were more influential in determining the difference in detection rates.

There were a number of factors identified in the research that appeared not to influence detection rate, or their impact is unclear:

- There was no consistent evidence to suggest that the higher detection rate BCUs gain advantage by having offences reported more rapidly or by the police being more timely in their response to time-sensitive calls.
- It is still not clear what impact the variations of offender/victim relationships between crime types and across BCUs have on detection rates (particularly for domestic burglary). In nearly one in five detected domestic burglary cases the offender was known to the victim (ranging from 6% to 31% across the different BCUs). By contrast, in less than three per cent of detected theft from motor vehicle cases did the victim know the offender.

Neither the discretionary style nor the procedural style can guarantee higher rates of detection. Success with the discretionary approach depends on the availability of experienced and well motivated officers with good supervision; success with the procedural approach depends on strong and effective procedures backed up by supervision.

Implications

In the context of a dearth of comprehensive data about how volume crime investigations are undertaken, a wide range of specific lessons may be drawn from this research exercise. But in view of the longstanding interest in four key issues – arguments for and against case screening and the impact of resources, the debate about investigative skills, about the contribution of forensic techniques and about indirect detections – it is important to assess what light the current research throws on these particular topics.

Case screening and resource issues

The research found that scene attendance varied considerably between crimes, and also between areas, with burglary offences much more likely to receive police attendance than vehicle crimes. But the point has been made that the screening of volume crimes takes place at all stages in the investigative process and that police practices in relation to screening cannot be simply presented in terms of scene attendance or the ‘classic’ separation between primary and secondary investigation. The policies and practices found also seemed, as Gill et al., (1996) indicated, largely to serve as a mechanism for targeting scarce resources. The point is made in Chapter 4 that there must be a strong suspicion that where screening is taking place this may not be being carried out in line with the principles behind the classic ‘screening model’ – that is, that resources are diverted from apparently unsolvable cases to channel them towards the investigation of a higher proportion of potentially solvable cases – but that this may be simply a means of controlling the overall investigative budget.

There is probably a strong case for forces to reassess their screening/attendance policies for those offences where first officer attendance is selective. Furthermore, there is evidence from this study that the pattern of screening is not necessarily filtering in cases with strong leads. This suggests that the way screening is being undertaken needs to be examined.

If this is the case it means that the current study cannot be relied on to provide any reliable guidance about the value, or otherwise, of case screening. Such evidence would need to be derived from some form of controlled trial. But the study does however shed important light on two issues critical to the debate about case screening: the ability to separate ‘solvable’ cases from the ‘unsolvable’, and the broader question of how resource availability affects investigative outcome.

On the issue of identifying ‘solvability’, the clear evidence from the present study is first that the presence of solvability factors does not offer any form of certainty of outcome and

second that a significant proportion of cases where there were few signs of leads, but were attended more speculatively, end up being solved⁵³. This suggests either that the BCUs under review were consistently deficient in recognising solvability, or that this is not as easy as has hitherto been suggested. The latter argument seems to be more plausible, particularly in the context where forensic examinations of scenes can yield clues that neither the victim nor other witnesses might have thought possible.

On the question of resources, the current research shows that resource levels and their deployment appear to be an important part of the mix of factors that influence direct detection rates. The twin study with which this is paired (Tilley and Burrows, 2005), looking across all BCUs in England and Wales, provides additional evidence to support this contention. It found that the number of offences per police officer is closely correlated with rates of detection: the more crimes per officer the lower the detection rate. This study has not sought to examine the formulae used to allocate resources between forces or, within forces, between BCUs. This is clearly a complex, and often contested, matter. Moreover, police services do much more than try to detect volume crimes, and their resourcing reflects factors other than the number of volume crimes.

Enhancing investigative skills

In view of the PIP programme's drive to enhance investigative skills, it is appropriate that any implications from the present research are drawn out and, if possible, taken into account in the development of this programme. This said, it should be pointed out that the design and methodology of the research was not well suited to exploring this dimension in any depth. Some reflections can however be made on three aspects of the debate about skills.

The first relates to the span and coverage of the PIP programme and other training of this type. Strikingly, Panting (2004) noted "...call handling and crime recording are functions that are often seen as independent to the investigation, where as many argue it should be the start of the investigative process. These functions have a considerable impact on the quality of both the initial crime report and subsequent investigation". This observation is amply borne out by the current research. Indeed, in the light of the importance of control-room staff in identifying allegations that warrant a priority response – over and beyond the part that such staff play in giving reassurance to victims (an issue not covered in this research, by virtue of the focus on investigative outcomes) – it could be argued that they should be regarded as the linchpins of the process.

53. An allied point is that it is very rare for cases that are not attended by the police to be detected: in short that 'telephone investigations' are more recording exercises than true investigations.

Second, given the key part that indirect detections – TICs – play in boosting sanction detection rates, brief comment might be made about the skills required to secure TICs. The findings of the cohort review indicate that the CID, when involved in interviewing suspects, seem to be more successful than their uniform counterparts but, this aside, while enquiries around this issue pointed to a series of cultural and procedural obstacles to gaining TICs, few were able to suggest means of enhancing interview techniques that would encourage or promote TICs. Moreover, it proved difficult to determine – from records held by BCUs themselves – just who excels in this field. To the extent that any skills-development plan might be well advised to derive its learning from ‘achievers’, this is not just an academic question – but one which might provide the foundation for improvements in the future. As well as seeking to improve the ability of interviewing officers, the support such officers derive from intelligence sources (particularly work on linking associations between offenders/suspects and crimes) should not be overlooked.

A final observation might be made on the subject of the overall management of investigations – supervision. The research cannot offer any significant insights into the training that might be appropriate for supervisory officers but it can be used to relay the message from many of the target BCUs that effective supervision – and in particular when screening for case closure – is critical to ensuring the front line officers diligently and creatively pursue all leads available to them.

The role and contribution of forensic techniques

There has been heavy investment in improving the capability of forensic techniques in recent years – primarily through the development of NAFIS and the national DNA database – and the research provides some mixed messages about the impact of this activity. The broad picture is extremely promising: forensic techniques are not only generating a sizeable proportion of ‘first links’ between a suspect and volume crime offences, but such techniques are also providing (in similar degree) the ‘principal information’ needed to make a case against a suspect. It is not possible to provide a clear historical context to demonstrate the change over time, but the research literature points consistently to the conclusion that whereas such techniques were formerly primarily used for corroboration, the move to inceptive applications of forensic material (Bradbury and Feist, 2005) has been dramatic. It can also be surmised that forensic techniques are not just replacing ‘first links’ that, in their absence, would be obtained by standard initial enquiries, but are making a marked impact on otherwise difficult, or impossible to detect, cases.

Against this very positive backdrop, it is clear that forensic advances have not yet proved to be a panacea that will resolve the challenges faced in volume crime investigations. Also, it has been found that good forensic performance is not necessarily a pre-condition of higher direct detection rates. There are however signs that considerable improvement might still be made in this area. The wide range of practices and outcomes reported by the different BCUs clearly points in this direction. The cohort review pointed to very large differences in the rate of scene attendance by SOCOs (not only between crimes and BCUs, but within BCUs for different types of volume crime), which supports findings from Williams (2004). The success at recovering contact trace material varied in the same degree: both findings suggesting that if police areas with low attendance and low recovery rates could match the success of their counterparts at the other end of the scale, more achievements would materialise. In particular the research pointed to the considerable scope to attend more vehicle crime 'scenes' and that this would be likely to yield more identifications. Equally there may be scope for reducing attendance at some types of crime – for example, domestic burglary where the evidence indicates diminishing marginal returns⁵⁴ – although the extent to which forensic examinations also provide reassurance to victims would need to be carefully considered.

Another lesson that can be drawn from the various research techniques is that there also appears to be scope for improvement beyond the bounds of scene attendance and recovery. For example process mapping in CH indicated that taking ten prints and buccal swabs was sometimes overlooked in custody suites. The costs of this are shown in the generally poor to mediocre DNA hit and fingerprint ident rates by numbers of incidents, despite relatively high rates of scene attendance. Similarly, it appears that BH, whilst effective and efficient in obtaining DNA hits, is missing potential fingerprint identifications.

Balancing the benefits of 'direct' and 'indirect' detections

Clearly indirect detections (TICs) are critical to improving detection rates: they currently account for one third of all volume crime detections nationally, and go quite a long way towards explaining the variation in sanction detection rates in some of the BCU comparisons under the spotlight in this research. This research has highlighted the rationales used for TICs, and for their neglect. It has also shown that although they are unlikely to be very time-consuming once a primary detection has been achieved, they are not easily obtained – and require skilled officer efforts.

54. For example, DL shows that high DNA match and fingerprint identification rates can be achieved with more selective attendance than undertaken in other BCUs.

There is clearly, however, a good deal of ambivalence (displayed both within and across the BCUs included in this study) on the importance of TICs. Rates in differing BCUs vary widely. Opinions of officers differ dramatically. There are perceived to be mixed messages about their relevance (with the contention that multiple charges and TICs are 'not in the public interest' often given most prominence). Added to this there can be little doubt amongst offenders that, once charged, it is extremely unlikely that they will be subject to further enquiries in relation to previous offending activity.

This confusion needs to be resolved. Undoubtedly progress can be made in developing a number of agreed practices and protocols surrounding the use of TICs (resolving, for example, the issue of 'proportionality' etc.), and further support for Intelligence Officers and others could assist in linking suspects to their previous crimes. But these are, of course, secondary to the major question of whether, and to what degree, the Home Office and police service should value indirect detections. Only with clear messages about this can those working in BCUs make sensible decisions about how much effort to devote to eliciting them.

It is important, in addressing this topic, to recognise that the debate about the relative value of direct/indirect (and previously 'primary' and 'secondary') detections has a long history, and that one longstanding feature of the debate has been an absence of factual data. The shortcomings in some facts about the 'day to day' use of indirect detections have already been mentioned – the absence of records about who secures them, for example, or whether TICs requested by offenders are actually asked for at court. But there are also issues on the wider front – about what line the CPS actually adopts, say, or the impact that TICs have on the sentence received by offenders, or even hard data about the relative costs of obtaining TICs against securing direct detections. Building a solid evidence base around issues such as these will help to ensure that the police service, CPS and courts buy into any clear policy direction. Some of these issues are already being addressed.

The 'procedural' and 'discretionary' models

This report has identified much that affects rates of detection in volume crime. It has identified a number of key enablers and inhibitors. It is possible now to describe two models of high detection BCUs, which have emerged from the research. One model is largely procedural and the other largely discretionary. Neither was optimally realised in any of the eight BCUs drawn on here. There are some common attributes alongside substantial differences. It has also been possible to discern some idea of the conditions in which each is likely to maximise rates of detection. Boxes 9.1 and 9.2 briefly spell out these two models, and the differing conditions conducive to each being the most effective.

Box 9.1: An outline of the 'ideal' discretionary model

Attributes in common with the procedural model

- Knowledgeable and credible leadership stressing volume crime detection
- Clear, regularly tracked performance targets, operated at the individual and all organisational levels
- Frequent supervision of all front-line staff, reviewing activities in detail
- High rates of response to reported incidents
- Quick response times to recent incidents and incidents in progress

Distinctive features of the discretionary mode

- Maximum officer ownership of cases, including:
 - Minimum number of stages in case processing – call handling, investigation, prosecution
 - Single officer co-ordination of specialist support for each case
- Maximum professional discretion at all stages:
 - In call grading and allocation of cases
 - In lines of initial investigation
 - In decisions to call SOCO
 - In SOCO collection of contact trace material
 - In analysis of contact trace material
 - In arrest
 - In interview
 - In prosecution
- Maximisation of evidence collection through links with the community
- Close personal relationship and co-operation between uniform and CID and scientific support

Conditions needed for the discretionary model

- Knowledgeable, professional officers exercising good individual judgement
- Skilled, experienced and conscientious supervisors capable of acting as mentors
- Education, training and continuing professional development to create and maintain all-round officer abilities
- Close ties and frequent communication between uniform, CID and SOCOs, preferably co-located
- Close and trusting relationships with the community served
- Strong individual professional ethics

Box 9.2: An outline of the ideal procedural model

Attributes in common with the discretionary model

- Knowledgeable and credible leadership stressing volume crime detection
- Clear, regularly tracked performance targets, operated at the individual and all organisational levels
- Frequent supervision of all front-line staff, reviewing activities in detail
- High rates of response to reported incidents
- Quick response times to recent incidents and incidents in progress

Distinctive features of the procedural model

- Identified clear stages/elements/roles in the investigative process, for example initial call takers, distribution to specialist handlers, telephone investigation unit, crime recording unit, response officers, SOCOs, local beat officer or CID for follow-up investigation, prisoner handlers, file preparation unit, CPS
- Established specifications of best practice for each stage/element
- As full and unambiguous a specification as possible of what needs to be done at each stage/for each element
- Selection, training and guidance for those appointed to deliver at each stage to ensure that they know what they are expected to do and are competent to do it
- Provision for clear record-keeping to allow smooth hand-over stage by stage

Conditions needed for the procedural model

- Knowledge about what comprises ethical and effective best practice at each stage
- Training of staff so that they know what they have to do and how to do it
- Supervisors who regularly check adherence to set procedures
- Accessible and easily used information systems that capture what is needed for each stage to take over from its predecessor
- Oversight of the process by a specialist unit that checks that the system is operating smoothly and efficiently

There are dangers in both models, if implemented poorly. The risk of the discretionary model is that discretion is uninformed, is used stupidly, is used thoughtlessly or is used unethically by officers given too much scope to follow their noses or blind prejudices. The risk of the procedural model is that operatives nominally do their jobs 'by the book' in a blinkered way that overlooks useful information for the investigation of crime – there is little scope for flair. The individuals involved may focus on the details of the prescribed activity at the expense of attempting to achieve its purpose. There is a risk too that rules will be subverted by those not convinced by them. The reason, for example, that supervision is stressed is to try to avoid the latent risks in each model.

The discretionary model depends on officers who have the necessary capacities. It operates most comfortably in stable and trusting policing environments, with relatively strong benefits and few risks. Elsewhere, with inexperienced officers, operating in changing environments with little trust within the police or within the communities served, a strong procedural model may deliver more benefits and fewer risks.

Box 9.3 attempts to describe a coherent mixed model where discretion and procedures are married in ways that might maximise the benefits of each and reduce the risks. It was probably most nearly approximated in CH.

Box 9.3: An outline of an ideal mixed model

Attributes in common with the discretionary / procedural model

- Knowledgeable and credible leadership stressing volume crime detection
- Clear, regularly tracked performance targets, operated at the individual and all organisational levels
- Frequent supervision of all front-line staff, reviewing activities in detail
- High rates of response to reported incidents
- Quick response times to recent incidents and incidents in progress

Distinctive features of the mixed model

- Small number of key stages requiring separate skills identified
- Allocation of generalist individual with case lead and responsibility for case co-ordination
- Established guidance on good practice for generalists and specialists
- Informed officers capable both of implementing set procedures and determining when they are insufficient or inappropriate
- Systems to share information and thinking about cases by those drawn into them

Conditions needed for the mixed model

- Knowledge about what comprises ethical and effective best practice in overall investigation and by stage
- Education and training for those appointed to exercise discretion thoughtfully and follow procedures or depart from them as required by the individual case
- Clever and reflective supervisors who regularly check use of set procedures and use of guidance, and who are also able to review the reasoning behind departures from set procedures
- Accessible advice to discuss ways of dealing with problematic individual cases

The models presented in Boxes 9.1, 9.2, and 9.3 are informed by the findings of this research even though none was realised ideally in practice. To this extent they comprise informed hypotheses about varying means by which levels of detection could be improved.

Future priorities for research?

Much more could be learned now from conducting some controlled experiments in which the findings of this report, and its companion, were tried out systematically. For example:

- What would happen if resources were switched for a time from a relatively well-resourced high detection BCU to relatively poorly resourced low detection BCU?
- Could experiments be carried out to properly evaluate the impact of case screening, in particular making sure that any savings accrued in 'screening out' cases were then invested in increasing the attention given to potentially solvable cases? These might focus in particular on vehicle crime, criminal damage and theft.
- With regard to the idealised models of high detection BCU described in Boxes 9.1, 9.2 and 9.3, what difference to rates of detection could be achieved in demonstration projects attempting to implement each systematically and rigorously?

The studies suggested here would not be simple to implement and conduct, but they comprise the best next step in building capacity for evidence-based ways of maximising rates of detection in volume crime.

Appendix 1.

Weighting issues

In each BCU equal numbers of detected and undetected cases were sampled. Detected cases were oversampled to generate a large enough number for meaningful analysis. The oversampling was corrected through weighting. Where weighted data are used, this is indicated in the notes to tables. Separate weights were calculated for each crime type in each BCU. This was done by dividing the number of eligible cases extracted as the sampling frame: in other words, all detected and all undetected cases of the relevant crime types over a one-year period, by the number randomly selected for case tracking.

BH constituted an exception to this general practice. A subset of the cases tracked in BH had already been selected for a Home Office pilot study. These were taken into the study reported here and the coding supplemented. Further cases were then added. The consequence is that two samples were selected from partially overlapping periods. This did not allow calculations of sampling frames for the detected and undetected cases to be produced, as could be done for the remaining BCUs. Instead, notional sampling frame sizes were produced from BCU figures relating to total numbers of detected and undetected cases over the 14-month period from which cases were drawn.

Two aspects of the weighting procedures should be mentioned. First, the detection rates implied by the numbers of detected and undetected cases from which the samples were drawn suggested slightly lower detection rates than those later reported by BCUs. This is to be expected in that there will be cases that were detected after the samples were extracted – in particular through TICs. Second, where weighted data are combined from more than one BCU, the influence of individual BCUs on the results is proportional to the number of cases from which the samples were selected. This could have had the effect that findings from the larger BCUs would consistently ‘drown’ those from the smaller BCUs. To avoid this, where indicated, the BCU figures shown in some tables are average of averages: this serves to eliminate the ‘swamping’ effect of larger BCUs.

Appendix 2.

First links between the suspect and crime, by crime type

Table A2.1: First links in directly detected cases, by crime type (per cent)

	BDW	BOTD	TFMV	TOMV
Initial investigation by police	57	49	56	51
Evidence at or from the scene	24	36	20	18
Intelligence	12	11	11	16
General patrol activities	4	2	12	13
Interviews by the police	3	2	1	2

Table A2.2: Types of first link in directly detected cases, when made through initial police investigation (per cent)

	BDW	BOTD	TFMV	TOMV
Victim identification	30	13	12	22
Witness description	21	41	47	27
Caught at/close to scene	21	27	13	33
Victim description	11	1	9	7
Witness identification	9	15	17	10
Victim hunch	8	3	2	1

Appendix 3. First links between the suspect and crime, by crime type and BCU

Table A3.1: First links for burglary in a dwelling, by BCU (per cent)

	AH	AL	BH	BL	CH	CL	Total
Initial investigation by the police	44.3	47.6	67.6	59.5	55.6	35.1	53.5
Evidence at, or from, the scene	41.0	19.5	9.5	14.3	22.2	48.7	22.9
Interviews by the police	8.2	3.7	1.4	1.2	2.5	2.7	3.1
Intelligence	6.6	15.9	16.2	8.3	12.4	2.7	11.2
General patrol activities	0.0	9.8	0.0	7.1	1.2	2.7	3.8
Other/not known	0.0	3.7	5.4	9.5	6.2	8.1	5.5

Table A3.2: First links for burglary other than in a dwelling, by BCU (per cent)

	AH	AL	Total
Initial investigation by the police	52.2	42.5	47.2
Evidence at, or from, the scene	36.2	34.3	35.2
Interviews by the police	1.5	2.7	2.1
Intelligence	2.9	17.8	10.6
General patrol activities	4.4	0.0	2.1
Other/not known	2.9	2.7	2.8

Table A3.3: First links for theft from motor vehicles, by BCU (per cent)

	BH	BL	DH	DL	Total
Initial investigation by the police	50.0	56.0	57.1	50.0	52.9
Evidence at, or from, the scene	23.2	14.3	0.0	27.4	18.8
Interviews by the police	3.6	0.0	0.0	0.0	0.9
Intelligence	5.4	11.9	9.5	12.9	10.3
General patrol activities	17.9	14.3	0.0	6.5	11.7
Other/not known	0.0	3.6	33.3	3.3	5.4

Table A3.4: First links for theft of a motor vehicle, by BCU (per cent)

	CH	CL	DH	DL	Total
Initial investigation by the police	41.8	53.3	35.0	48.9	45.9
Evidence at, or from, the scene	23.9	17.3	2.5	12.8	15.7
Interviews by the police	4.5	1.3	2.5	0.0	2.2
Intelligence	14.9	6.7	35.0	8.5	14.4
General patrol activities	3.0	12.0	15.0	19.2	11.4
Other/not known	11.9	9.3	10.0	10.6	10.5

Appendix 4. Supplementary analysis of 'timeliness'

Tables A4.1 and A4.2 address the two components of 'victim opportunity' time in the high and low performing BCUs: Table A4.1 focuses on the time window of the offence and A4.2 on the time between discovery and report. The tables seek to establish whether high performing BCUs might owe their greater detection rates to the fact that a higher proportion of cases either committed in, or reported in, narrow time windows: to simplify understanding it focuses only on the shorter time periods of 0-4 and 5-10 minutes⁵⁵. The tables indicate that they enjoy neither of these advantages, and indeed that low detection rate BCUs consistently deal with offences committed in, or reported in, narrow time windows.

Table A4.1: Time window of offence, by crime type, in high and low detection BCUs (per cent)

	High detection BCUs	Low detection BCUs	All
Burglary dwelling			
0-4 minutes	9.7	13.2	12.4
5-10 minutes	3.3	3.9	3.8
Total	13.0	17.1	16.1
Burglary OTD			
0-4 minutes	4.1	4.7	4.5
5-10 minutes	0.8	5.5	3.6
Total	4.9	10.1	8.1
Theft from MV			
0-4 minutes	5.0	24.0	12.2
5-10 minutes	1.6	4.6	2.8
Total	6.6	28.6	15.0
Theft of MV			
0-4 minutes	4.0	19.3	8.7
5-10 minutes	2.7	1.0	2.2
Total	6.7	20.3	11.00

Weighted data n=7,291

55. To ensure that findings can be 'read across' these three tables, the analysis was performed only on cases where data was provided on all these three time dimensions.

Table A4.2: Time taken from offence discovery to report, by crime type, in high and low detection BCUs (per cent)

	High detection BCUs	Low detection BCUs	All
Burglary dwelling			
0-4 minutes	17.0	24.3	22.5
5-10 minutes	9.6	8.2	8.5
Total	26.5	32.5	31.0
Burglary OTD			
0-4 minutes	5.3	30.0	18.9
5-10 minutes	7.1	5.3	7.8
Total	12.4	35.2	26.7
Theft from MV			
0-4 minutes	8.0	30.0	16.4
5-10 minutes	5.5	5.3	5.4
Total	13.5	35.2	21.8
Theft of MV			
0-4 minutes	31.8	48.4	36.9
5-10 minutes	10.5	9.5	10.4
Total	42.3	57.9	47.3

Weighted data n=6,681

Notwithstanding these results it may be that higher detection BCUs respond much more speedily than their counterparts. Focusing still on these narrower time bands, Table A4.3 then compares the proportion of cases in the high and low performing BCUs where:

- the offence time window was under ten minutes; and
- the time between discovery and report was under ten minutes

These are shown jointly as the 'victim opportunity' cases, or those where the police appear to have a strong case for making a rapid response; and

- for this subset of cases, the time between report and officer arrival was under ten minutes. This is shown as the 'police opportunity'.

Table A4.3: The proportion of cases where ‘victim opportunities’ fall under 20 minutes and where – for those – police opportunity time is under ten minutes: by crime type, in high and low detection BCUs (per cent)

	High detection BCUs	Low detection BCUs	All
Burglary dwelling			
Victim opportunity	10.1	11.0	10.7
Police opportunity	32.0	39.8	38.0
Burglary OTD			
Victim opportunity	0.4	8.2	5.0
Police opportunity	100.0	54.0	55.4
Theft from MV			
Victim opportunity	2.7	15.4	7.5
Police opportunity	51.7	34.5	38.3
Theft of MV			
Victim opportunity	4.7	9.8	6.3
Police opportunity	38.1	76.9	56.8

Weighted data: victim opportunity n=2,094; police opportunity n=823. Note that ‘victim opportunity’ time is presented as a proportion of all crime, but that ‘police opportunity’ time is presented as the proportion of victim opportunity cases where the police attended within ten minutes of report.

The table shows, first, that the proportion of cases where offences meet both the ‘victim opportunity’ time bands specified – that is, being committed in a time band of ten minutes or less, and being reported to the police within ten minutes or less – is relatively small: this occurs in only 10.7 per cent of burglary dwelling cases and falls to just five per cent of non-dwelling burglaries. The police are able to respond to between a third and a half of such cases (from 38% of burglary dwelling cases to 57% of thefts from motor vehicles) in ten minutes or less. There is no consistent evidence that high performing BCUs respond to a higher proportion of cases in this time period: this is the case in respect of burglary OTD cases and thefts from motor vehicles, but not for the other two crimes.

It may be that the time window for ‘victim opportunity’ selected here is too broad: certainly the Kansas City evaluation (Kansas City, 1977) pointed to the fact that a small time threshold is critical to the outcome of police investigations and minor delays will markedly reduce the likelihood of detection. To explore this question further the same analysis was run, but this time reducing the victim opportunity time to ten minutes in total. The results are presented in Table A4.4.

Table A4.4: The proportion of cases where ‘victim opportunities’ fall under ten minutes and where – for those – police opportunity time is under ten minutes: by crime type, in high and low detection BCUs (per cent)

	High detection BCUs	Low detection BCUs	All
Burglary dwelling			
Victim opportunity	1.8	4.2	3.4
Police opportunity	42.2	42.9	42.8
Burglary OTD			
Victim opportunity	0.0	1.7	0.9
Police opportunity	0.0	21.7	21.7
Theft from MV			
Victim opportunity	0.9	1.8	1.5
Police opportunity	15.7	6.5	9.0
Theft of MV			
Victim opportunity	0.6	3.5	2.2
Police opportunity	57.1	56.8	56.9

Weighted data: Victim opportunity n=1,166; Police opportunity n= 397. Note that ‘victim opportunity’ time is presented as a proportion of all crime, but that ‘police opportunity’ time is presented as the proportion of victim opportunity cases where the police attended within ten minutes of report.

Overall there are some differences. As a proportion of all cases, reducing the victim opportunity to ten minutes obviously reduces numbers significantly and the percentages of cases that meet these tighter criteria are small. In terms of the relationship with police opportunities – it appears that for burglary dwelling cases, a smaller time window gives a slightly higher proportion of cases with police opportunities of under ten minutes. Very few burglary OTD cases meet the criteria (the numbers are too small). For theft from motor vehicle cases the smaller victim window actually produces a smaller proportion of cases in the police opportunities window and, for theft of motor vehicle cases, the proportions are similar to those reported in Table A4.3 – although there is a slight improvement for the high detection BCUs.

Appendix 5. Case outcomes when contact trace material is recovered

The exact nature of the relationship between contact trace material (CTM) and final case outcome can be difficult to decipher. This is mainly because it can be difficult to establish what impact CTM has at which stage of an investigation (for example a first link, as a tool to get suspects to admit to offences in interview etc.), or even if such evidence is used at all during the investigation. The cohort data does however show a clear relationship between the collection and submission of contact trace material (in this case fingerprints and DNA) and the likelihood of a case being detected.

Table A5.1 outlines this relationship for fingerprints and final outcome of cases (weighted data). This shows that in cases where fingerprints are not obtained from the scene, 92 per cent are not detected. Similarly where fingerprints are collected from the scene, but not submitted to the laboratory for testing, 92 per cent of cases also remain undetected. For cases where a suspect match is made or an identification is confirmed, the detection rate increases markedly. For cases where a match is made, 79 per cent are detected (a further 12% lead to TICs) and, in 92 per cent of cases where there is a suspect match and ident confirmed, the case is detected (the rest lead to TICs).

Table A5.1: Relationship between fingerprint yield and final outcome of cases.

	Detected	Not Detected	TIC
No prints obtained	7	92	1
Prints obtained but not submitted	16	78	6
Prints submitted but no ident	5	92	3
Legitimate access	2	96	2
Suspect match	79	8	12
Suspect match and ident confirmed	92	0	8
Suspect ident not clear	72	0	28
ALL	9	89	2

Weighted base = 18,033

A similar pattern is observed for the relationship between DNA and final case outcomes (Table A5.2). This shows that in cases where DNA is not obtained or where DNA is obtained and not submitted, the detection rates are lower than for cases where such

evidence is available. For cases where DNA was not obtained, 91 per cent of cases were not detected. However, for cases where there was a suspect match, 92 per cent of these cases were detected.

Table A5.2: Relationship between DNA yield and final outcome of cases.

	Detected	Not Detected	TIC
No DNA obtained	7	91	2
DNA obtained but not submitted	28	65	7
DNA submitted but no ident	18	76	6
Legitimate access	100	0	0
Suspect match	92	0	8
Suspect match and ident confirmed	69	25	7
Suspect ident not clear	74	0	26
ALL	9	88	2

Weighted base =18,182

Appendix 6. Summary of screening strategies in the target BCUs, by crime type

BCU	Crime	Screening prior to immediate response	Screening prior to initial investigation	Initial response: Per cent of cases	Screening after initial response	Screened in for secondary inv/n: Per cent of cases	Secondary investigation
AH	Burglary dwelling	No, attend all reports when available	No, attend all reports – immediate or	99.0	Yes. 'Screen in' means screen in for secondary investigation	13.8	Undertaken by specialist unit. No standardised process – continue relevant leads
AL	Burglary dwelling	No, attend all reports when available – sole response now means could be SOCO if not immediate	No, attend all reports – immediate or	92.6	Yes. 'Screen in' means screen in for secondary investigation	19.6	
BH	Burglary dwelling	No, policy is to send a police officer to all incidents to obtain a statement from the victim	No, policy is to send a police officer to all incidents to obtain a statement from the victim	98.3	No, all cases are passed to CID after initial investigation	N/A	Intelligence packages put together by LIOs could trigger a secondary investigation
BL	Burglary dwelling	No, policy is that no dwelling burglaries can be screened out	No, policy is that no dwelling burglaries	89.4	No, all cases passed to specialist operation when suspect identified or arrested, or when initial investigation is complete for review and case closing	N/A	All investigation by Local Police team who hand over to specialist unit if a suspect identified or arrested

BCU	Crime	Screening prior to immediate response	Screening prior to initial investigation	Initial response:	Screening after initial response <i>inv'n:</i> Per cent of cases	Screened in for secondary	Secondary investigation
CH	Burglary dwelling	Yes – only those with 'danger to life or property' – all others passed to CIB for initial information gathering by phone	Yes – Crime management unit allocates incidents for initial response – however policy is that all Burglary dwelling should be allocated	97.9	Continuous management by CMU – allocation to CID as part of on-going investigation	N/A	Would be possible if incident picked up as part of a special investigation
CL	Burglary dwelling	No. Immediate response if reported in progress, otherwise response prioritised on basis of offence – all burglary dwelling to be attended within an hour, all commercial burglaries to be attended within time period agreed with caller	No. Immediate response if reported in progress, otherwise response prioritised on basis of offence – all burglary dwelling to be attended within an hour, all commercial burglaries to be attended within time period agreed with caller	98.1	Local (civilian) crime evaluator checks for suspects identified or potential lines of enquiry – if so to DS in the	100.0	Burglary team – at point of suspect or continuation of leads established by first response
AH	Burglary non-dwelling	No, attend all reports when available	No, attend all reports – immediate or when available	97.8	Yes. 'Screen in' means for secondary investigation	50.9	Undertaken by specialist unit. No standardised process – continue relevant leads
AL	Burglary non-dwelling	No, attend all reports when available – sole response now means could be SOCO if not immediate	No, attend all reports – immediate or when available – sole response now means could be SOCO if not immediate	97.7	Yes. 'Screen in' means for secondary investigation	41.8	

BCU	Crime	Screening prior to immediate response	Screening prior to initial investigation	Initial response: Per cent of cases	Screening after initial response	Screened in for secondary inv'n: Per cent of cases	Secondary investigation
DH	Theft from MV	No screening – all reports receive an initial response and investigation, of which the minimum is a victim statement taken		84.4	No. Sergeants are responsible for case closures and will continuously manage progress until they are satisfied no further action is appropriate	N/A	Cases could be picked up for further investigation as part of a special operation or task force
DL	Theft from MV	Yes – for immediate response, against simple criteria	Yes – Area crime management unit reviews report taken by phone	40.4	Not really. Second 'Screen in' is for investigation – or initial response if not immediate response	N/A	
BH	Theft from MV	No, the policy is to attend all incidents and obtain a statement from the victim		63.4	No. Continuous management by beat sergeants	N/A	Intelligence packages put together by LIOs could trigger a secondary investigation
BL	Theft from MV	Yes, overall calls that need response are allocated to dispatchers. Calls that don't need response are passed to crime processing unit to take details and provided they meet force screening criteria then they are filed undetected by the crime processing unit		38.9	No, screening screens out prior to initial investigation. All cases are then managed to completion by supervisors	N/A	All investigation by Local Police team

BCU	Crime	Screening prior to immediate response	Screening prior to initial investigation	Initial response: Per cent of cases	Screening after initial response	Screened in for secondary inv'n: Per cent of cases	Secondary investigation
CH	Theft of MV	Yes – only those with 'danger to life or property' – all others passed to CLB for initial information gathering by phone	Yes – Crime management unit allocates incidents for initial response	37.4	Continuous management by CMU – allocation to CID as part of on-going investigation	N/A	Would be possible if incident picked up as part of a special investigation
CL	Theft of MV	Yes. Immediate response if reported in progress, otherwise response screened on basis of offence – theft of and from motors do not need a response unless there are other factors e.g. evidence	No. Crime reports from immediate response and telephone reports for incidents that didn't receive an initial response are both passed to the local crime evaluator	23.7	Local (civilian) crime evaluator checks for suspects identified or potential lines of enquiry – if so minor or simple to uniform, and complex to CID or dedicated crime response team	N/A	Uniform or CID – if suspect or if elements of investigation to be continued
DH	Theft of MV	No screening – all reports receive an initial response and investigation, of which the minimum is a victim statement taken	No. Crime reports from immediate response and telephone reports for incidents that didn't receive an initial response are both passed to the local crime evaluator	89.8	No. Sergeants are responsible for closures and continuously manage progress and close when no further action is appropriate	N/A	Cases could be re-opened as part of a special operation or task force

BCU	Crime	Screening prior to immediate response	Screening prior to initial investigation	Initial response: Per cent of cases	Screening after initial response	Screened in for secondary inv'n: Per cent of cases	Secondary investigation
DL	Theft of MV	Yes – for immediate response, against simple criteria	Yes – Area crime management unit reviews report taken by phone	4.4	Not really. Second 'Screen in' is for investigation – or initial response if not immediate response	N/A	

Weighted data. N= 44,635 for initial response, N= 20,284 for secondary investigation

Appendix 7.

Secondary investigation

Previous research

Secondary investigation is not a part of the response to volume crime on which there is consensus among expert opinion. To some there seems to be a clear distinction between 'primary investigation' and 'secondary investigation' yet others take no account of it. Even where the distinction is made it is not always clear at what point the 'secondary investigation' starts.

For the MPS the issue appears straightforward. Their public website gives an explanation of their secondary investigation screening process:

'Screening means that once the initial, or primary, investigation is completed – if there is no possible chance of successful investigation then a secondary, follow-up, investigation by detectives will not follow unless one of a number of locally defined factors apply...' (MPS, 2003).

The Centrex guidance for volume crime management shows secondary investigation as a separate element in the 'Screening Policy' diagram (Panting, 2003). In contrast, the guidance from the ACPO crime committee (ACPO 2002) does not identify a separate secondary investigation component; instead it deals with everything from taking statements through house-to-house and stolen property enquiries as part of one section on 'The Investigative Process'.

Jacobson, Maitland and Hough (2003) identify a screening process that allocates further investigation in burglary investigation though they don't use the term 'secondary investigation'. They recommend that 'the process of allocating offences for further investigation – or "crime screening" – must be systematic'. However, the 'further investigation' they speak of would appear to be a very limited initial response, because they also say that 'crime screening is the process by which serious cases are allocated to CID officers, less serious (or straightforward) cases go to uniformed officers, and cases with a low chance of detection are placed on file.'

The association of a screening decision for 'secondary investigation' with the point at which CID become involved in a case was a feature of the PRG burglary investigation guidance

(Bridgeman and Taylor-Browne, 1996). This advises that if crimes are correctly allocated 'Detectives' time will be liberated by reducing the time they spend doing a second examination of the crime' (our italics).

The literature review of volume crime investigations (Jansson, 2005) infers from other sources that the process goes direct from 'scene attendance' to 'crime report – screening for secondary investigation'. They write: 'secondary investigation, as discussed here, refers to investigative actions taken after the initial assessment and enquiries at the scene.' However, they seem to acknowledge that the 'initial assessment and enquiries' could be quite comprehensive, because they refer to Coupe and Griffiths (1996) who when they examined secondary investigations, the authors of the literature review say found that 'most of these visits by CID appeared to simply duplicate the efforts of uniformed officers, and did not appear to be very useful.'

Gill et al., (1996) distinguished between two screening processes in their 'ideal type' representation of a crime allocation system based on the BCUs they studied. They identified the first screening decision as being whether to allocate resources to the reported incident, and the 'secondary screening' decision as being how the incidents that the first screening allocated initial resources to are allocated for further action. In this process the cases were referred for prosecution (already detected); allocated a resource for further enquiries; filed undetected; or rejected and returned to the first investigator.

What the current research found

The interpretations of secondary investigation that can be drawn from the different approaches of the BCUs in this study reflect the diversity of approach identified by previous research. The research found that the ways screening is conducted are more divergent than had previously been acknowledged and where a distinction between primary and secondary investigation is made, the evidence suggests that in practice it has little special significance that makes it different from the decision to file a case undetected or continue an investigation by the same officers.

Of course, all BCUs had a process whereby reports of crimes coming in to the police could be allocated immediately to officers for a response, and in most cases screening took place in the way that Gill et al., described to only allocate resources to those cases that warranted a response.

In the BCUs where only incidents in progress had received an initial response, the crime reports from the scenes (if no arrest had been made) and the crime reports taken by telephone are reviewed together by a Crime Management Unit and those that have the greatest likelihood of detection are allocated for initial investigation. In some cases this could be seen to match the secondary screening described by Gill et al., but in other cases it represents the first instance of a resource being despatched to the scene. In these BCUs the cases that are screened in are then continuously managed. There is no subsequent 'screening process' except the decision that there is no further investigation worth pursuing, at which point the case is screened out. In CH there was the possibility of a further stage of 'secondary investigation' if the incident was picked up as part of a special investigation.

The BCUs that routinely allocated officers to an initial investigation AH and AL most closely resemble the process summarised by the recent literature review: 'scene attendance' is followed by 'screening for secondary investigation' (Jansson, 2005).

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