Working paper

Management and retention of police information: how long should the police retain information about individuals?

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Abstract

The NCPE MoPI Guidance (NCPE, 2006) advises on temporal periods for the review, retention and disposal of police information that is about individuals. There is concern that these temporal periods are not supported by a scientific evidence-base that provides the justification for these periods, based on the necessary purposes of this information for policing. Alongside this necessity of purpose for policing is the need to balance legislation that applies in the UK, in particular the Human Rights Act 2000 and the Data Protection Act 1998.

This research has examined the existing literature and consulted with a small but representative selection of key stakeholders on the rationale behind the lengths of the periods that should be applied to the review of police information to ensure they meet the principle condition of being 'necessary'. This research has primarily drawn from the research on recidivism and desistance to identify the key factors that influence the future risk of offending.

This research project has identified that age rather than offence type has a stronger and more consistent influence on when an offender may re-offend. It has also identified what is considered to be a useful method for determining when the risk posed by a person who has previously offended returns to a 'normal' level i.e., the same as for the general population, or more stringently the non-arrest population. This has shown the importance of age and recency of the last offence in influencing the risk of future offending, and that age appears to be a clear, more consistent and stronger influencing variable to recidivism (and desistance) than offence type.

The age at which the offending population was considered to be statistically similar (in significance terms) showed variation in relation to the offence type, but that age was more consistent and clearer in determining the point at which the individual had become 'redeemed' and the length of 'clear periods' that should be set. This indicated that if reviews of information were to be purely based on recidivism and desistance research that has been published, then 3 – 8 year terms, depending on the age of the offender and offence type, may well be sufficient. However, these need to be balanced with legislation, so the minimum retention period for all police information should be 6 years due to certain conditions in the Limitation Act that influence police information.

It is shown that this balance between legislation and scientific evidence can be balanced, but that more scientific evidence needs to be developed in order to provide a good degree of justification and rationale behind the review periods that are applied and that inform the decision on whether to retain or dispose of information that can not be contested.

Contents

1. Introduction

Police forces are faced with the challenge of complying with legislation over the deletion of information, whilst competing with the danger of disposing information that may have significant value for other unforeseen policing purposes. Legislation that influences this management of police information includes the Data Protection Act 1998 and the Human Rights Act 2000.

Information is the lifeblood of policing, but unless it is accurate, relevant and accessible when it is needed, it is of little value. A statutory code of practice on the management of police information (MoPI) was introduced in 2005 in direct response to recommendations of the Bichard enquiry report. It is being implemented by all police forces in England and Wales. All police forces declared compliance with the first phase of MoPI by the deadline of the 31 March 2007.

MoPI is about making information relevant and accessible and ensuring that all police operational information is managed in a consistent way. This consistency applies to how information is collected, recorded, reviewed, retained and disposed. Compliance with the full MoPI standards, on track for 2010, will support consistent national standards across the Police Service and help forces prepare for the arrival of the Police National Database (PND). MoPI is intended to ensure that data included on the PND are of a consistent quality and standard, and must also ensure that this information is compliant with legislation.

One particular challenge that police forces are experiencing is to ensure that information conform to Section 7 of the MoPI Guidance relating to the Review, Retention and Disposal of Information and that records that no longer have any policing purpose are deleted (NCPE, 2006).

1.1.   The current review, retention and disposal standards – an overview

The current time limit that is set in the Guidance is a minimum retention period of six years. This requires police forces to review data records and delete those that are no longer considered to be necessary to support a policing purpose. The six year minimum retention period for policing information applies to those offences that are considered to be relatively minor, but the length of the period was not based on research of criminal behaviour or the practical value of this information, and was merely implemented as a protection threshold against the Statute of Limitations. Additionally, 'the six year minimum is a means of ensuring that forces have sufficient information to identify offending patterns over time, and helps safeguard against individuals efforts to avoid detection for lengthy periods' (NCPE, 2006).

For more serious offending, the MoPI Guidance recommends a minimum retention period of ten years but again, there appears to be little scientific basis for this threshold. Other periods are 50 years and when the offender reaches the age of 100 years for the most serious types of offending and public protection.

1.2.   Aims of this research

It is considered that the rationale for the retention periods needs to be based on a more robust scientific and evidential principle. It is hoped that a review of this rationale will provide clearer direction and justification to support the management of police

information and appropriately assign each record with a suitable retention period. In this sense this report is written in a manner to help inform the discussions on the rationale behind the review, retention and disposal procedures for police information, rather than providing new guidance.

This exercise has primarily involved a literature review to investigate if academic research either supports the current process or indicates more appropriate time periods for the retention, review and disposal of police information. A number of people have also been consulted during the course of this research.

Aims of this research
- A literature review of relevant academic research into the review, retention and disposal periods of police and other criminal justice information and data records.
- Consultation with the Information Commissioners Office and other key stakeholders to explore supportive legislative, regulatory and practical standards in the review and retention of police information.

The literature review may also help to identify the need for further empirical research that the police service may conduct or commission to help them with the management of their information.

Associated with this research is the other recent research and consultation relating to the retention of DNA and fingerprint information. Materials that relate to this work have been reviewed as part of this wider research into police information. This has included consultation with Ken Pease on his findings. However, due to Ken's illness, consultation with Ken has been limited to several preliminary discussions. His academic paper on DNA retention that is to be submitted to an academic journal for peer review has though been reviewed in this research exercise.

All parts of this research were performed by Spencer Chainey from the Jill Dando Institute of Crime Science, University College London.

It is assumed that all readers of this report are familiar with the MoPI Guidance (NCPE, 2006). If not it is recommended that readers review this guidance, particularly section 7, before continuing with this document.

The report begins by describing the method that was applied and then reviews the relevant legal framework. Sections 4 and 5 then report on the research literature and on findings that help identify suitable rationale and consideration on the suitable length of time that police information should be retained for. This is added to by reviewing complementary or any competing research evidence (sections 6 and 7), with section 8 describing the issues with the existing research evidence and makes recommendations for future work. Section 9 offers several considerations and conclusions.

2. Method
2.1. Literature review of relevant academic research into appropriate time periods for the review, retention and disposal of police and other criminal justice information and data records

The literature review seeks to identify, gather and document evidence that can support and inform the decisions on the appropriate time periods for the review, retention and disposal of police information. The literature review has involved searching for relevant published research and other materials that apply to police information and more widely to criminal justice. During the literature review we have also been conscious to identify other sources from other areas of public service or business that are relevant to the aims of this research. Our focus has though been towards practice that is applicable to the UK context and regulations. By no means does this exclude reviewing results from research conducted overseas, but does require its consideration in the UK context, in particular in relation to UK legislative conditions.

Our primary approach has been to use the research literature to help decide if a calculation can be made that weighs up the proportionate retention of information to support the investigation and detection of crime, crime reduction and offender management, against the legislative conditions over the processing of personal information and the practical management of police information. Within this literature review we have considered that a principle question to answer is whether there is a natural shelf-life to recorded police information that can be justified and defeined in statistical terms, and which is proportionate to legislative requirements? In other words, is it possible to scientifically determine with confidence a 'clear period' for offenders that justifies that after this period of time, information that is recorded about them no longer serves a policing purpose? This has led us to consider the following as we have searched and reviewed the literature:

- How long can you keep 'old' and 'insignificant' records i.e. beyond what period of time does the information lose significance?
- What determinates can we use to measure if police information no longer serves any purpose? Can this relate to the probability of recidivism and the attrition of information for detection purposes?
- Does this shelf-life or 'clear period' vary in relation to the age of the offender?
- Does this shelf-life or 'clear period' vary by the type of offence?
- Does information on a person who is a repeat offender warrant a longer shelf-life/clear period?
- Is there validity in extending the shelf-life/clear period of a record if the information has new value within the original term of the shelf-life e.g. if a person becomes classified as a PPO or is identified as a serious criminal involved in organised crime, do offences that they committed prior to being identified and which they are linked to warrant some extension to the retention period?
- Should we treat information that results in a conviction differently to information that has not resulted in a custodial sentence?
- Are conditions already set in legislation that influence the review period of police information?
- What are the key reasons that lead to a detection? Where does 'old' police information feature in this?

- Does retention of police information offer public confidence that those guilty will be found quickly and dealt with effectively
- Does the retention of data create a deterrent to offending or re-offending?
  - o Have re-offending levels changed as a result of data retention rules changing?
- Is it practically reasonable to consistently apply the principle of 'kept for no longer than is necessary'
  - o Is it practically difficult to review every piece of police information, and therefore there is the need for some automation to be applied in the review, retention and disposal of information
  - o If automation is applied then it should work best when there are simple clear rules rather than a variety of connotations i.e. need a simple process across all police information
- Does the retention of police information need to follow the same rules that apply to the retention of DNA and fingerprint information?
- Are there any reasons why victim and witness information should be treated differently to personal information about offenders/suspects?
- Is it likely that change to existing standards/policy of data review, retention and disposal have an adverse effect on public safety – detection, crime reduction, public safety?

2.2.   Consultation with the ICO and other key stakeholders

Consultation with these parties has helped to explore legislative, regulatory and practical standards in the review and retention of police information. This has involved consulting with the following people:

- **Office of the Information Commissioner** - Liam Duncan (Data Protection Practice Officer - Public Team)
- **Durham Constabulary** – Leigh Davison (Information Manager)
- **Durham Constabulary** - Teresa Ashforth (Force Records Manager) and representative of the Information Managers for the Police Service forum
- **Greater Manchester Police** – Gill Emerson (Information Management, and lead on MoPI)
- **Greater Manchester Police** – David Ottiwell (Data and Analysis Development Manager)
- **Northumbria Police** – Andrew Dalby (Information Manager and lead on MoPI)
- **ACPO Criminal Records Office** – Sean Beresford
- **National Police Improvement Agency** – Eric Young

This has helped us to test the scientific evidence against legislative and practical requirements.

3. The legal framework

In this section we provide a summary of the legal conditions that apply to personal information that is recorded by police forces. We also cite other legislation that is applicable to the management of police information. We cover these points in this section in order to ensure that the discussion that follows in subsequent sections is placed in appropriate context to these legislative requirements.

3.1. Human Rights Act 1998

Article 8 of the Human Rights Act is the item of particular relevance to the management of police information. Article 8 states that everyone has the right to respect for their private and family life, home and correspondence and that no public authority will interfere with this right unless it is necessary by law, in pursuit of a legitimate aim, and necessary in a democratic society. This places a responsibility on the police to ensure that the management of police information must meet a policing purpose. In this sense, the decision to retain information must be proportionate to the person's risk of re-offending, and the risk of harm they pose to others and the community.

3.2. Data Protection Act 1998

The Data Protection Act (DPA) provides a legal framework for performing processes for holding, obtaining, recording, using and sharing personal information. Under the terms of the DPA, the management of police information must adhere to the eight data protection principles:

1. It will be processed fairly and lawfully
2. It must only be processed for a specific purpose or purposes
3. It must be adequate, relevant and not excessive for the purpose
4. It must be accurate and, where necessary, kept up to date
5. It must not be kept longer than necessary
6. It must be processed in line with the rights of the person it is about. With particular relevance to police information these rights include the rights of the person to see any information which is held about them and the right to uphold any automated decision-making (where computer-based systems make decisions).
7. It must be kept secure
8. It must not be transferred to countries outside the European Economic Area without suitable protection.

The DPA contains a number of exemptions which enable the processing of personal information without consent. This means that the rules of not being able to process personal information are suspended where the application of the requirements of the Act would be likely to prejudice one of the matters in the exemptions. The most relevant exemptions that relate to the processing of policing information are:

- Section 29 Crime and Taxation
  - o Personal data processed for any of the following purposes:
    - the prevention or detection of crime,
    - the apprehension or prosecution of offenders, or
  - o Personal data which are processed for the purpose of discharging statutory functions
  - o Personal data in respect of which the data controller is a relevant authority and which consist of a classification applied to the data subject as part of a system

of risk assessment which is operated by that authority for the purpose of the prevention or detection of crime

- Section 35 Disclosures required by law or made in connection with legal proceedings
  - o Personal data are exempt from the non-disclosure provisions where the disclosure is required by or under any enactment, by any rule of law or by the order of a court
  - o Personal data are exempt from the non-disclosure provisions where the disclosure is necessary:
    - for the purpose of, or in connection with, any legal proceedings (including prospective legal proceedings), or
    - for the purpose of obtaining legal advice, or is otherwise necessary for the purposes of establishing, exercising or defending legal rights.

3.3.   Criminal Procedure and Investigations Act 1996

This Act sets down requirements for retaining information that is relevant to investigations for set periods of time. It states that relevant information must be retained until:

- A decision is taken on whether to institute proceedings against a person for an offence
- The accused is convicted, acquitted or the prosecutor decides not to proceed with the case
- The convicted person is released from custody (when a custodial sentence was imposed), or released from hospital in those cases where a hospital order was imposed
- For a minimum of six months from the date of conviction in all cases

3.4.   The Limitation Act 1980

This Act is a statute of limitations which provides timescales inside which action may be taken for breaches of the law. It provides that breaches of an ordinary contract are actionable for six years after the event, and that after this time any remedies available for breaches are extinguished and no action may be taken in the courts in respect of those breaches.

The Limitation Act does not though apply to criminal offences, but rather to civil incidents e.g. a person failing to pay rent to their landlord or someone suing for an injury sustained in a car accident. That is, there is no limit on the time that the police can bring about a charge on a person, and that in turn, the length of time that police information can be retained for this purpose is not governed by this Act - the six year period that applies under the Limitation Act does not apply to criminal offences.

However, where it does apply is in the case of when a member of the public, such as the victim of an offence, wishes to bring about civil action on the police for a breach of the law that they have committed. For example, this could be the failure of the police to properly and professionally conduct an investigation into an offence where the person who is bringing the case was the victim. The victim has 6 years from the date of the offence to bring about the civil action against the police.

3.5.   The Rehabilitation of Offenders Act 1974

The Rehabilitation of Offenders Act 1974 (ROA) enables some criminal convictions to become 'spent' or ignored after a 'rehabilitation period'. The Act is aimed at helping

people who have been convicted of a criminal offence, particularly if it is minor, and who have not re-offended since. People with many convictions, especially for serious crime, do not benefit from the Act unless the last convictions are very old.

A rehabilitation period is a set length of time from the date of conviction. After this period, with certain exceptions, an ex-offender is not obliged to mention their conviction when applying for a job or obtaining insurance, or when involved in criminal or civil proceedings. The length of the rehabilitation period depends on the sentence given - not the offence committed. For a custodial sentence, the length of time actually served is irrelevant: the rehabilitation period is decided by the original sentence. Custodial sentences of more than 2 1/2 years can never become spent.

Cautions, reprimands and final warnings are not criminal convictions and so are not dealt with by the Act. This means that if people with cautions, reprimands or final warnings are only asked whether they have any 'criminal convictions' or a 'criminal record'[1] they can answer 'no'. Sometimes people are asked if they have a 'criminal record'. However, people who are specifically asked if they have cautions, reprimands or final warnings should disclose them until they are deleted from police records.

Once a conviction becomes spent, it remains spent, even if a person is convicted of other offences later. Table 1 lists the rehabilitation periods for different sentences. Appendix 1 provides more details on certain scenarios relating to rehabilitation periods.

Sentence	Rehabilitation period	
	People aged <=17 when convicted	People aged >=18 when convicted
Prison sentence <=6 months	3.5 years	7 years
Prison sentence >6 months and <=2.5 years	5 years	10 years
Prison sentence > 2.5 years	Never spent	Never spent
Fines Probation order Compensation Community Service Combination Action Plan Curfew Orders Drug treatment Reparation Order	2.5 years	5 years
Absolute discharge	6 months	6 months

Table 1. Rehabilitation periods defining the period after which a conviction becomes 'spent'.

Once a conviction is 'spent', the convicted person does not have to reveal it or admit its existence in most circumstances. However, there are some exceptions relating to employment and these are listed in the Exceptions order to the ROA. The two main exceptions relate to working with children or working with the elderly or sick people. If a person wants to apply for a position that involves working with children or working with the elderly or sick people they are required to reveal all convictions, both spent and unspent. As the Criminal Records Bureau checks are only available for those applying for positions involving working with children, or working with the elderly or sick people, the checks will reveal both spent and unspent convictions.

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[1] This is a less precise term but it is usually understood to mean convictions

The ROA came into force in 1974 and there does not appear to be evidence of the 'spent' terms being based on any research findings. There must also be some concern that these 'spent' periods are not consistent with other review periods. While the practice of review, retention and disposal of police information may not be affected by the ROA it has the possibility of creating confusion amongst the public over when information that is held about them is no longer necessary. Ideally, it is important that review periods used or that are applicable to the police service and the information they hold about individuals needs to be consistent, or at least guidance needs to refer to any exceptions particularly that which is documented in legislation.

3.6. Summary
The CPIA provides a basis for considering the minimum length of time police information should be held for, rather than governing the maximum time it should be held. From this Act we can begin by determining that legislation requires information to be retained for a minimum of six months.

Under the Limitation Act criminal actions do not get time-barred, but a member of the public can bring about proceedings against the police service on information that is recorded about them and has upto 6 years to do so. It would be ideal to avoid the blanket coverage of 6 years retention on all police information but it is not known if there is a consistent pattern that provides evidence on determining who, and the type of information that his held about them, will most likely pursue a civil action. This currently prevents a more selective approach to be applied.

The Rehabilitation of Offenders Act applies to certain conditions that are aimed to help people to wipe the slate clean of any previous offences. The Act only applies to criminal convictions and does not apply to cautions, reprimands and final warnings. The Act sets out the following
• Persons who receive a prison sentence of greater than 2.5 years for an offence will never have this offence registered as spent, regardless of their age
• For people aged 17 or under and who received a prison sentence of less than 2.5 years will take a maximum of 5 years for the offence to be spent
• For people aged 18 or over and who received a prison sentence of less than 2.5 years will take a maximum of 10 years for the offence to be spent

This shows that this legislation is age weighted and that for older people it will take more time for their offences to become spent. The ROA does not though place any conditions on the management of police information, but there is the obvious need to apply consistency on 'spent' and retention periods to help ensure there is clarity on these periods across the criminal justice service and to avoid public confusion, particularly with regards any information that is passed to the PNC and or the PND.

The HRA and DPA provide the legal framework governing the management of police information and are the primary conditions that determine how information can and can not be used. Establishing a policing purpose is the key to ensuring that the management of police information is compliant with this legislation. As long as the information can be shown to meet a policing purpose, the legal basis exists for the information to be retained.

4. Propensity, recidivism, desistance, police information and the policing purpose – a review

The central consideration behind the justification to retain or dispose of police information relates to whether the information is necessary to support a policing purpose, and a key element to this is if 'old' information is of the same value as 'new' information. In this section we explore this by firstly considering the general propensity to commit crime, then we summarise the 'policing purpose' that relates to police information to then consider what evidence can best support the decision to retain or dispose of information for a certain length of time after its collection.

4.1.   Everyone is at it
Lots of people commit crime. This has been evidenced by a number of studies. Examples include:
* A Home Office cohort study (Farrington et al., 2006) of males born in 1953 shows that 33% had a conviction for at least one offence by their 46th birthday
* In a cohort study of 670 males born in Racine, Wisconsin USA in 1942 who were followed through until they were aged 32 it found that 52% had committed an offence by the time they were 18 years of age (Kurlychek et al., 2007)
* Christensen (1967) calculated that 50% of the US male population would be arrested for a non-traffic offence in their lifetime
* In a study that explored the prevalence rates for offending by 14-21 year olds for a number of countries across Europe, the results for England and Wales were that 66% admitted to committing a crime (Junger-Tas et al, 1994). Further assessment has considered this to actually be an underestimate.

While not all crime is reported, it still suggests that at any one point the police service has on record, personal information for a significant volume of the country's population. There must obviously then be the need to carefully consider if all this information is necessary to meet a policing purpose as well as considering the simple practicality of storing all this information.

4.2.   Reviewing the necessary purpose for policing
Police information, under the definition that relates to MoPI (NCPE, 2006), is required to support five key policing purposes:
* Protecting life and property
* Preserving order
* Preventing the commission of offences
* Bringing offenders to justice
* Any duty or responsibility arising from the common or statute law.

This can relate to information that is collected and recorded on crime records, for child abuse investigations, on custody records, for calls for service (i.e. incident records), on intelligence systems, and on stop and search records. This type of information can be collected via routine collection, tasked collection, or volunteered (NCPE, 2006).

Assessing whether to retain information must follow these key points:
* Is the infringement of an individual's privacy created by the retention of their personal information proportionate to the necessary policing purpose?

- Is there confidence that information that will be disposed of is no longer necessary for the policing purpose?
- Is a consistent approach being followed in the review, retention and disposal of police information?

> **Necessary** – the record must hold some value for the Police Service in their effort to fulfil a policing purpose (NCPE, 2006).

The review process for police information is a full record review. It focuses on an individual and any other records that are linked to them. For those cases where there is police information about an individual that is linked to a crime in the past and there is no evidence of any further offending, the decision on whether to retain the information needs to be determined by whether it is necessary for a policing purpose.

Police information can also be broadly placed in to four groups – information that relates to an undetected offence, information for which there has been no further action, information that relates to a detected offence, and information that relates to a specific requirement to meet the need for public protection (e.g. MAPPA, serious specified offences, and potentially dangerous people). These are useful groupings to consider because they can also help in considering how information should be managed.

4.3. What information should be retained?
4.3.1. Information that relates to an undetected offence
Current guidance suggests that police information for undetected crime should be retained for 50 years if it is for serious specified offences and for 6 years for other offences. The rationale behind the 50 year retention is the Criminal Justice Act. The rationale for other offences is the Limitation Act. However, in practice, and from consulting with several police forces, there seems to be little logic with these periods and that these periods are inconsistent with other legislative and practical requirements.

The Limitation Act does not apply in this sense and allows police forces to retain undetected crime information for ever. The ICO also sees logic in undetected crime information being retained. For example, analysis of the patterns in these undetected crimes and linkages between those that may have been committed by the same offender may lead to the detection of crime at some point in the future, plus other information may come to light such as new intelligence or an offender admitting the offence when arrested for other offences. There does not seem to be any sense in disposing of undetected crime information.

However, while this seems logical there is actually no empirical evidence that could be found that quantifies the value of this information and how this value changes over time. For example, does information on undetected crime have the same value on the date it was reported to its value at some distant point in the future? Anecdotally, and from police practice it indicates that more recent information is of more value, but what is not known is when this value decays (as it ages) to a level that is the same as a random piece of information being used to assist the policing purpose for which the original information was retained – to detect a crime.

4.3.2. Information that relates to a specific requirement to meet the need for public protection

As long as the specific requirement for public protection clearly defines the police information that needs to be retained (e.g. a list of offence types that relate to this purpose) then it is necessary, and supported by legislation for this information to be retained for ever. The 100 and 10 year terms seem arbitrary, and appear to present several police forces with some difficulties – both in terms of the resources that are required to conduct reviews under this 10 year term and cases where the 100 year age limit of the subject does not apply in all scenarios. For example, one force that was consulted is currently investigating the allegation of a 95 year old man who it is reported has committed a serious sexual act against a child. Clearer rationale for the timed review of this group of offences needs to be established because the view I received from several police forces was that the current guidelines are not workable.

Note: I have not managed to find evidence or reasoning on a definitive alternative rationale but one could be to retain the information on the subject until it is known they have died (plus one year for administrative purposes) or to retain for 100 years from the date of the offence when it could be archived as public record. In virtually all cases, the individuals that these public protection matters relate to are under constant review so rather than setting some arbitrary 10 year review period, it may perhaps be better for the panels that manage these individuals to take responsibility for reviewing individuals and report this to a central police unit, rather than leaving it for the police force to review generically at some arbitrary point. This does need further consideration because it is usually not just the police who are involved in the supervision of these types of individuals but also partner agencies who may also have information on them. If one deleted their information it could compromise the purpose for another agency.

4.3.3. Information that relates to a detected offence

At present there are two review periods – review after 10 years for Group 2 sexual and violent offences (see NCPE, 2006 for a list of these offences) and retain if necessary; and review after 6 years for Group 3 other offences and retain if necessary. It is suggested that the Limitation Act provides partial but not sufficient rationale on deciding on the 6 year review term, and that the 10 year review term needs to be based on a more considered scientific basis. Subsequent sections explore the rationale and justification for these two periods in detail.

4.3.4. Information for which there has been no further action

This category can include a subset of information that relates to a detected offence, but also other information that is listed in Group 4 of the MoPI Review Schedule (NCPE, 2006). It is suggested that the same rationale and justification on the review and retention of this information should also follow that for detected offences and will be explored in subsequent sections

4.4. Recidivism

Recidivism in criminal terms is the act of a person re-offending at some point after previously committing an offence. It is most usually used to refer to a tendency to commit many crimes. The notion of recidivism is important in relation to the management of police information because it provides a key piece of the central logic and justification behind the necessity of the police to retain information. This has also

been reasoned in the consultation on the retention of DNA information (Home Office, 2009), and although the considerations in my research were initially developed in isolation to the retention of DNA discussions, the fact that both sets of research have revolved around similar points indicates the potential that this type of research may have on helping to determine retention periods and the management of police information. The research reported on in this document goes deeper than the Pease work in its exploration of recidivism.

Note: I think that a number of the findings that are reported in section 6 of the Keeping the Right People on the DNA Database report about hazard rates are misleading and inaccurate.

Firstly, they are not consistent in the comparison populations that are used (a distinction is not made between comparisons to the 'general population' which contains those that were arrested and the non-arrest population – I make this distinction in the following sections). This ends up in naturally producing different results when hazard rates for those who have been arrested converges with whatever comparison group is used.

Secondly, I think it is most important to consider confidence thresholds in determining whether the hazard rate of those who have previously been arrested is similar to the hazard rate of the comparison group. Again, the results reported on in section 6 of the DNA Database report do not appear to be consistent on this point, or do not use results that are based on this approach. This can end up in using two sets of results that were generated using different methodologies and so are therefore not comparable. Because I have access to the two peer reviewed studies that are reported on in s6.7 and s6.8 in the DNA Database report, the results that have been selected can easily result in misleading the reader.

Thirdly, I have no idea where the authors of the DNA Report source the New York State results because these are over twice the levels that are reported in the Blumstein and Nakamura 2009 study. I report on what I consider to be the accurate results in this report.

There is a strong positive relationship between past and future offending and this continuity has been evidenced in many studies (Piquero, Farrington, and Blumstein, 2003; Brame, Bushway, and Paternoster, 2003; Farrington,1987; Blumstein, Farrington, and Moitra, 1985). For example, figure 1 illustrates this with data for individuals born in Philadelphia in 1958 who were followed through to the age of 26 (Kurlychek et al., 2006). This shows that knowledge of an offender's prior record is a good general indicator of the risk and propensity to re-offend. It shows that after each offence, the probability that they will offend again increases.
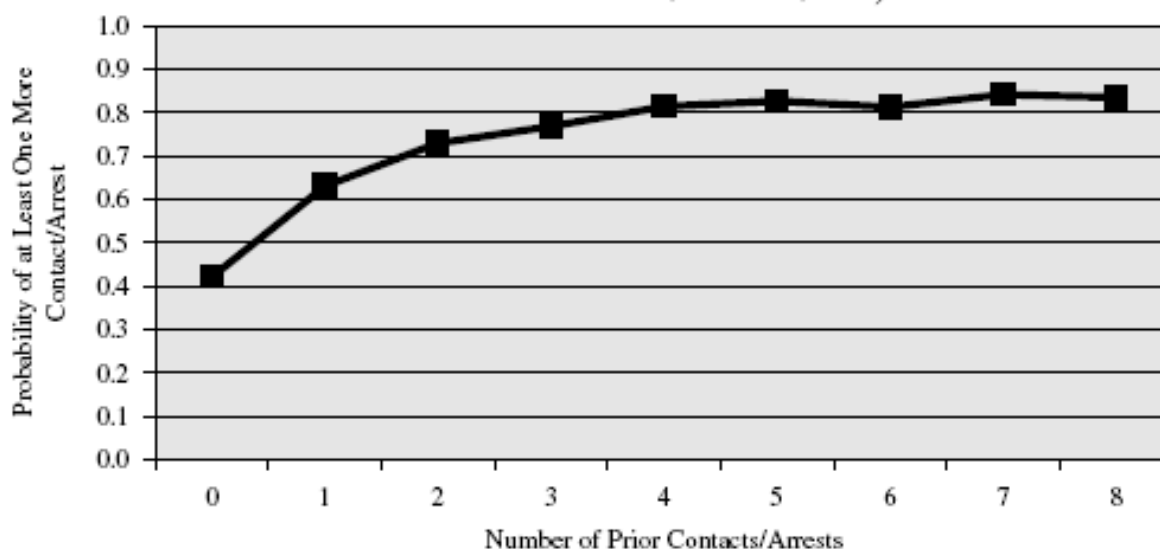
Figure 1. Risk of new offences by number of prior offences. Source: Kurlychek et al., 2006.

Other research shows that 30% to 60% of individuals who committed an offence when they were 17 years of age or under go on to commit at least one offence in their adult years (Brame et al., 2003; Farrington, 1987; McCord, 1978; Shannon, 1982).

By retaining information about an offence and the person who committed the offence provides information that can not only be used to support a conviction, but can also be used to predict future offending behaviour. For example, if a person has a history for committing domestic burglary, then it is probable that at some point in the future they will also be tempted to commit another burglary. Retaining information on their behaviour helps to build the criminal case against them but also helps to predict their future offending patterns (for an example see Bowers and Johnson, 2004).

The notion of recidivism therefore contributes to the justification for why the police should retain information. It is also hypothesised that research into recidivism can help to justify the length of time that police information should be retained for. This is explored in subsequent sections.

Many recidivism studies have only looked at short time periods because the main interest has been to look at who is likely to re-offend soon. However, there is also the need to balance this with evidence on those that do not go on to commit any crimes again in the future. With reference to the three studies referred to in section 4.2. 'Everyone is doing it', what is also interesting in these studies but often less quoted is that:
- Of the 46 year old males in the England and Wales cohort, half of them were only convicted once and slightly over half had a criminal career of less than one year. Of the offences that were committed, nearly half were convicted of theft or handling stolen goods
- In the US study, of those that were arrested, many were identified as only ever committing one offence and that this offence was committed a long time ago, with these ex-offenders maintaining a clean record since
- And in the European study of offenders between 14-21 years of age, nearly half of the respondents from England and Wales said they had committed a crime in the last 12 months.

In addition, only 5% to 10% of young offenders actually go on to become 'chronic' offenders over time (Moffitt, 1993; Dunford and Elliott, 1984;; Shannon, 1982; Wolfgang, Figlio and Sellin, 1972)

This highlights four important considerations:
- Many offenders who commit crime often only ever commit one offence
- The offences they commit tend to be minor offences
- For the adults (such as the 46 year olds in the Home Office study), the offence they committed was a long time ago, but for young people their offending behaviour tends to be much more recent
- Many people have made mistakes in their past that may have led to them being arrested, particularly when they were young, but they have since turned themselves around and now live a respectful and law abiding life (Blumstein and Nakamura, 2009).

Only recently have recidivism studies looked at longer time periods, partly because it is not until now that the subjects in the studies have reached an age beyond 30, and it is only recently that this type of longitudinal data has been available in electronic form i.e. the computerisation of crime records only began in many places in the 1980s (Chainey and Ratcliffe, 2005; Ratcliffe, 2004). These studies have helped to identify the key notion of desistance from crime and the key variables influencing recidivism.

4.5. Desistance and the key variables influencing recidivism
4.5.1. The impact of desistance
Alongside the strong positive relationship between past and future offending is the need to also consider equally strong evidence of desistance from crime by a subset of those who have previously committed offences. This is important in relation to the review, retention and disposal of police information because it provides perhaps the strongest foundation upon which to more scientifically determine the review periods for police information, especially that which falls into MoPI Review Groups 2, 3 and 4 (NCPE, 2006).

4.5.2. The hazard rate
A measure that is used in the analysis of recidivism is the hazard rate. This is the proportion of individuals who experience a police contact (e.g. an arrest, caution, conviction) at a certain age, in relation to those who have had no police contacts between the beginning of the follow-up period and that same certain age. Thus a hazard rate can be calculated for a particular population for any given age. Effectively, it is a measure that enables us to determine a risk factor associated with the chances that an individual may offend again (after a first offence) and consider how this risk factor changes as they get older in relation to the general population from which they are drawn from.

In a US study, Raskin (1987) showed that the hazard rate for a cohort of individuals was greatest during the first 6 months following a previous offence, after which time it continually decreased – "the longer an individual is able to survive without committing his next offense, the better his chances of desisting from crime." (Raskin, 1987: 63)

#### 4.5.3. Desistance, life course and the age-crime curve

The reason why a person may not re-offend has been shown to relate to the change in the life course of the offender, such as getting married and being in employment (Sampson, Laub, and Wimer, 2006; Wallman and Blumstein, 2006; Uggen, 1999; Warr, 1998; Sampson and Laub, 1993).

However, the most powerful explanation that is identified in the research literature for desistance is age, with the age-crime curve demonstrating a steady decline in criminal activity after a peak in late teens and the period of young person to adulthood (Sampson and Laub, 1993, 2003; Farrington, 1986; Hirschi and Gottfredson, 1983). For example, analysis on offenders from adolescence to age 70 has shown that most offenders desist after the age of 40 (Blokland et al., 2005; Laub and Sampson, 2003).

Examples of this are shown in figure 2. Figure 2a is taken from a seminal academic study into age and crime from 1986 for offenders in England and Wales showing that the peak in offending was between the ages of 16-20. Figure 2b is taken from the 2008 Middlesbrough CDRP Strategic Assessment and shows how repeatable this pattern is, both at the local level and 25 years on.
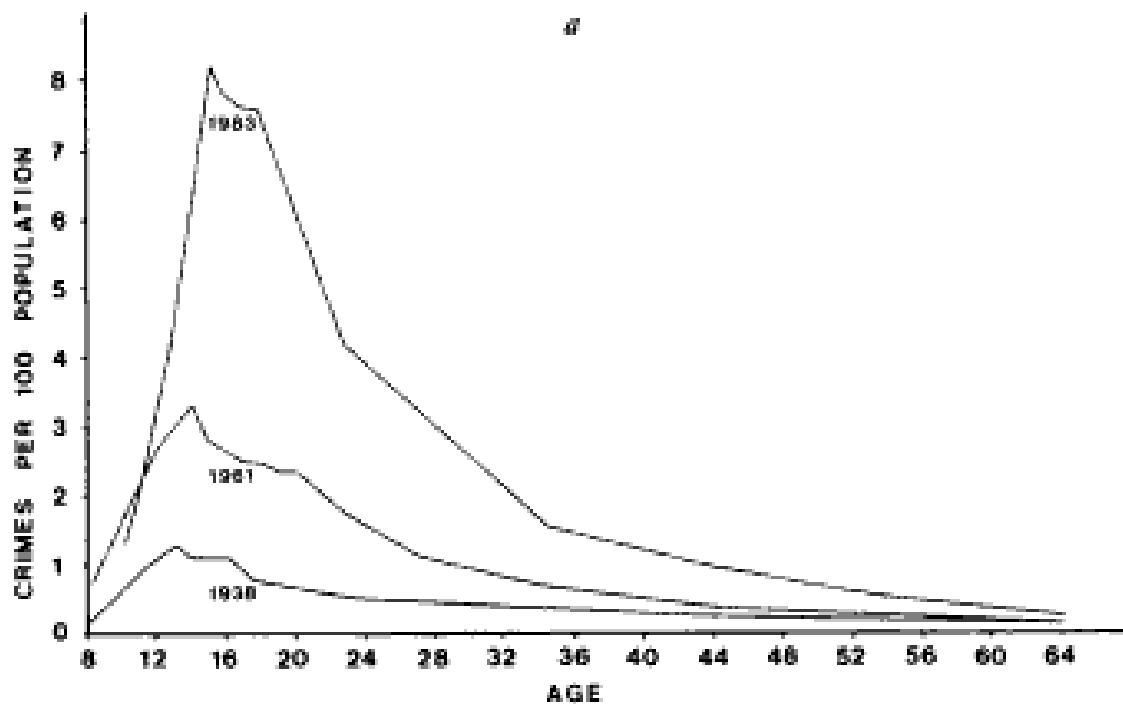
(a) Source: Farrington, 1986

Age profile of offenders in Middlesbrough
(Proportion of offenders and offender population index by age)
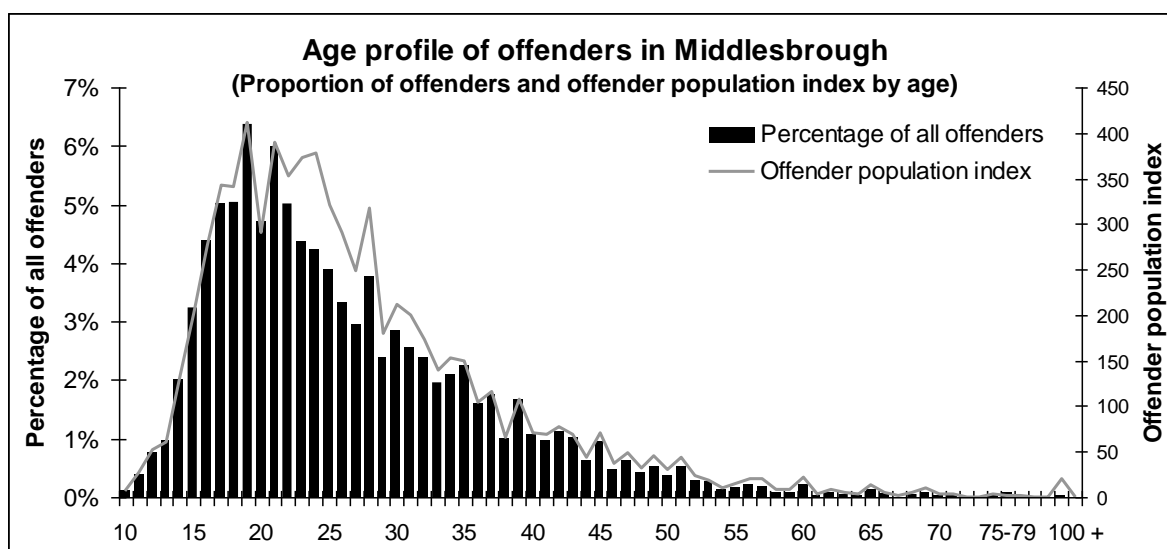
(b) Source: Safer Middlesbrough Partnership, 2008
Figure 2 Age profile of offenders of crime in (a) England and Wales in 1938, 1961 and 1983, and (b) in Middlesbrough in 2008 by volume and an indexed value. An index value of 100 means that the offending population is proportionate to the resident population.

In addition, research consistently shows that an earlier onset age for offending is a good predictor of a serious criminal career which is characterised by a larger number of offences and a longer criminal career (Blumstein et al., 1986; Farrington et al., 1990; Farrington et al., 2003; Piquero, Farrington, and Blumstein, 2007). That is, the younger they start the more likely they are to become more of a problem, and a problem that will persist more for some time into the future.

4.5.4. Desistance and time after an offence
There is also the need to consider how the influence of time after an offence may influence offending behaviour. There is now good evidence that the period that is clear of committing any offence (i.e. from this point in time to the last offence) strongly affects the relationship between past and future offending behaviour (Blumstein and Nakanura, 2009). Studies on recidivism consistently demonstrate that not only will those who have offended in the past have the highest probability of re-offending at some point in the future, but this point is most likely to be soon after the preceding offence.   The probability of offending then declines steadily there after (Visher, Lattimore, and Linster, 1991; Schmidt and Witte, 1988; Maltz, 1984;).   Examples include:
- US prisoner releases - of all those re-arrested within 3 years, two-thirds were re-arrested within the first year (Beck and Shipley, 1997; Langan and Levin, 2002)
- New Jersey, USA - the recidivism of 962 offenders convicted between 1976 and 1977 was followed over 20 years. Half were re-arrested within 2.2 years.
- North Carolina, USA – in a study of prison release cohorts it was found that the percentage of inmates returning to prison peaked before 10 months since being released, by the 20-month mark this percentage had halved, and by the 40-month mark this percentage had halved again (Schmidt and Witte, 1988)
- 30% of the offenders remained arrest-free after their original sentence (Gottfredson, 1999). Of those that did not offend in the first 10 years after the original conviction, only 3.3% went on to ever offend again in the next 10 years (Community Legal Services Inc., 2005)

Regardless of the reason, it is clear that individuals who have offended in the distant past seem less likely to recidivate than individuals who have offended in the recent past.

4.5.5. Desistance and the type of offence committed
The type of crime committed has also been shown to affect recidivism rates
- In the US, prisoners released for burglary, robbery, larceny and motor vehicle theft had the highest recidivism rates (Beck and Shipley, 1997; Langan and Levin, 2002) in comparison to more minor offences
- In another US study, the recidivism rate was highest for those whose first arrest was for violence (Piper, 1985)
- A prior record of violence, especially at younger ages, is seen to predict more serious and chronic offending in the future (Piquero, Farrington, and Blumstein, 2007; Elliot, 1994; Farrington, 1991)

Most studies on recidivism focus on how swiftly an offence occurs following a previous offence, but very little attention has been paid to those who offended and who have stayed crime-free. Research in the last few years has begun to explore this by attempting to calculate the length of time it takes for the risk level of a person who committed an offence to return to the same level as the risk of offending by any member of the general population. These studies have also explored if the age when the first offence was committed and the type of crime that was committed have any influence on this time period. It is the findings from this research that is considered to be most useful in helping to determine and justify suitable review periods for police information as it can help to consider if the information about a person is necessary based on the likelihood that the person may or may not re-offend at some point in the future, using the risk of offending by any other member of the public as the threshold.

5. How 'old' should police information be for it to be considered as no longer necessary?

In this section we draw together the principle and relevant research findings that help to direct the rationale and justification for review periods for police information, based on recidivism and desistence of offending.

Although past offence activity is a useful sign of future offending, this information has decreasing value over time because the risk of recidivism decreases monotonically with the length of time a person has been clear of offending. We can therefore be confident that there is a point when the risk of re-offending has declined to a level of a reasonable comparison group. This is not to suggest that even though the last offence was some time ago that the individual will exhibit no risk of offending in the future, but instead that there is a likelihood that the person will return to a level of risk that is the same as that of a suitable comparison group.

We therefore aim to answer the following questions:
- How long does it take for an individual with a prior criminal record and no subsequent recorded criminal involvement to be of no greater risk than persons in a suitable comparison group?
  - By comparison group can we compare this to the general population, including offenders amongst this group?
  - By comparison group can we compare this to the population that has no prior criminal record?
- What are the key factors relating to recidivism and desistance, how do these influence the risks of offending in the future, and can we measure these influences?

Geographic coverage	Number of subjects	Description of data subjects	Analytical approach	Academic reference
New York State	88,000	- Persons arrested for the first time in 1980 - Followed through for 27 years	Hazard rates for 18 years following arrest for offenders arrested when aged 16, 18 and 20	Blumstein and Nakamura, 2009
Philadelphia	13,160	- Persons born in 1958 - Resided in Philadelphia between ages of 10-17 years	Hazard rates for those arrested when aged 18-24, and in years when aged 25 and 26	Kurlychek et al., 2006
Racine, Wisconsin	670 males	- Born in 1942 - Followed through until aged 32	Hazard rates for those arrested when between 17-20, with measurements through to aged 32	Kurlychek et al., 2007

Table 2. Details on the data used in the three primary longitudinal studies into recidivism and desistance.

The research primarily draws from three US studies – New York State (Blumstein and Nakamura, 2009), Philadelphia (Kurlychek et al., 2006), and Racine, Wisconsin

(Kurlychek et al., 2006). Details of the data used in these studies are provided in table 2. To date (at the time of conducting this research in July – August 2009) there has not been a similar UK study published in a peer review academic journal or other text. We do though cite the recent work of colleagues Ken Pease and Andromachi Tseloni in their analysis of DNA retention (Home Office, 2009; Tseloni and Pease, in press) and the Home Office impact assessment results published in the DNA Database report (Home Office, 2009).

> **Hazard rate** - risk of person to re-offend based on them having committed a crime *t* years ago and none since. The calculation involves calculating the number of new arrests. New arrests can be for any offence type and not just for the same offence that was committed previously.

5.1. The influence of age on recidivism and desistance

The New York State and Racine studies provide the principle and relevant findings in relation to age. Figure 3 shows the probability of re-arrest for 16, 18 and 20 year old burglars against the years since their first arrest in New York State. The first point to take from this is the decay in the re-arrest probability over time since the first arrest. This suggests that offenders of different ages should be treated differently.
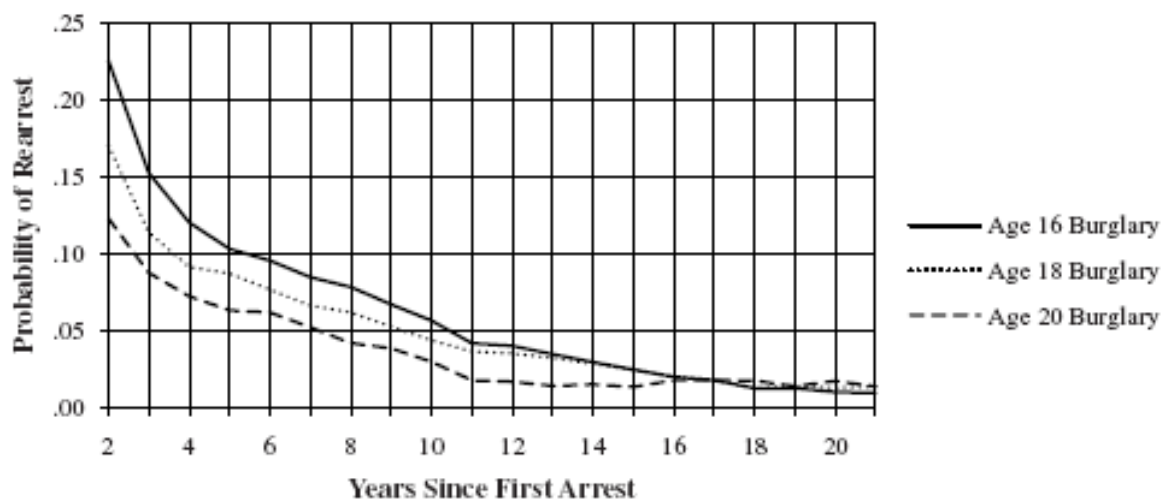

Figure 3. Probability of re-arrest over time since first arrest for burglars aged 16, 18 and 20 years of age.

Secondly, it shows that in any assessment of the schedule for reviewing, the retention and disposal of police information, age plays an influencing fact. That is, there should be a longer period of review for younger people than older people. This research evidence does not though extend beyond individuals aged 20 at first arrest, nor does it consider whether the probability of re-arrest is any different to a suitable comparison group – this will be explained in one of the next sections.

The Racine study indicates the importance of recency across all ages. In an analysis of 25 to 32 year olds, individuals who were arrested in the few years leading up to the age of 25 were much more likely to be arrested again than individuals who were last arrested when they were juveniles or when they were 18 years of age (i.e. those with recent records have much higher risk). Research findings from the literature review in this report have already reported on a key feature of recidivism being related to the

short time period that is likely between offences that are committed by individuals. While the New York State study suggests that the probability of re-arrest for younger people has greater longevity i.e. the younger the person at first arrest the more likely they are to offend again in comparison to older offenders - this should be sensitive to the recency of the offence. That is, a 22, 23 or 24 year old (based on the Racine findings) who commits an offence is more likely to commit an offence within a couple of years (when they are 25 or 26), than an individual who committed an offence when they were aged 21 or under, and have not offended since.

Summary
These results indicate that the younger the age of the person at the time of arrest, the higher the probability that they will re-offend. However, recency of the offence in relation to the age of the offender must be taken into account, with this most typically over-riding any age factor.

Potential impact on guidance
- Regardless of age, the 'clear period' for an offender should be reset each time (and for all information that relates to them) they commit an offence
- The younger the offender the longer the length of clear period that should be set i.e. the longer the time that is necessary to impose before their police information should reviewed

5.2. The influence of offence type on recidivism and desistance
The Kurlychek et al. (2006) study in Philadelphia suggest that there is little difference between hazard rates for violent and non-violent offenders, except in the 20.3 and 22 age groups (see figure 4). However, this may require careful consideration of the US context. In the US the legal drinking age, which is strictly enforced, is 21. Figure 4 shows a separation in the hazard rates for violent and non-violence offences between the ages of 20.3 to 22, a prime age for enjoying the night-time economy in Philadelphia. These results from the Kurlychek et al. Philadelphia study maybe indicative of the legal drinking age in the United States and the link between alcohol and violent crime, and the propensity for this age group to be at a greater risk to engage in violent crime that is associated with the night-time economy.
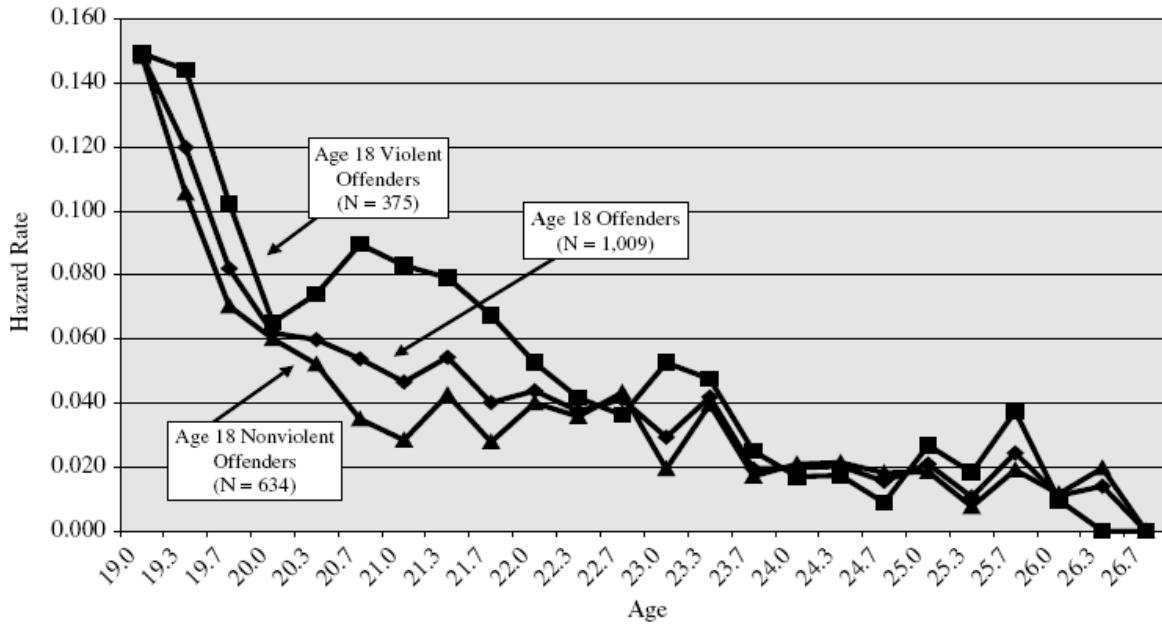
Figure 4. Hazard rates for age 18 violent and non-violent offenders in Philadelphia. Source: Kurlychek et al., 2006.

The influence that the offence type has on the probability of re-arrest over time is most clearly illustrated in the Blumstein and Nakamura, 2009 study in New York State. This showed that offenders who committed robbery had a higher probability of re-arrest at all points in the future compared to burglary and aggravated assault (serious assault), except when the three offence types converged to the same probability at 11 years after the first arrest (see figure 5).

In a further analysis of their New York State data they distinguished between violence and property and showed that the probability of being re-arrested was higher for violence but both came together after 11 years (see figure 6). We explore the comparison with 'the never arrested' trend line in one of the next sections.
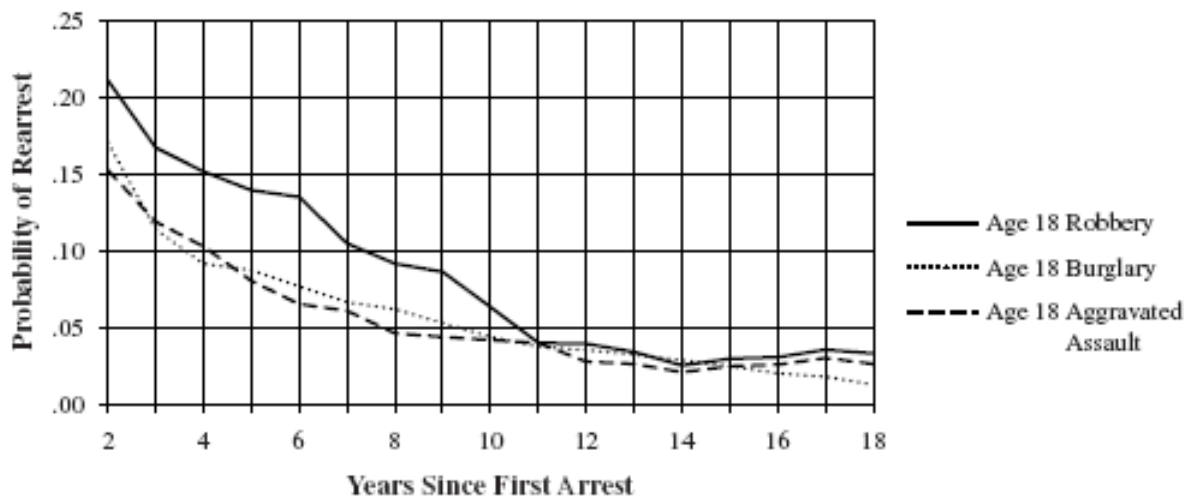

Figure 5. Probability of re-arrest over time since first arrest for 18 year old offenders for robbery, burglary and aggravated assault.
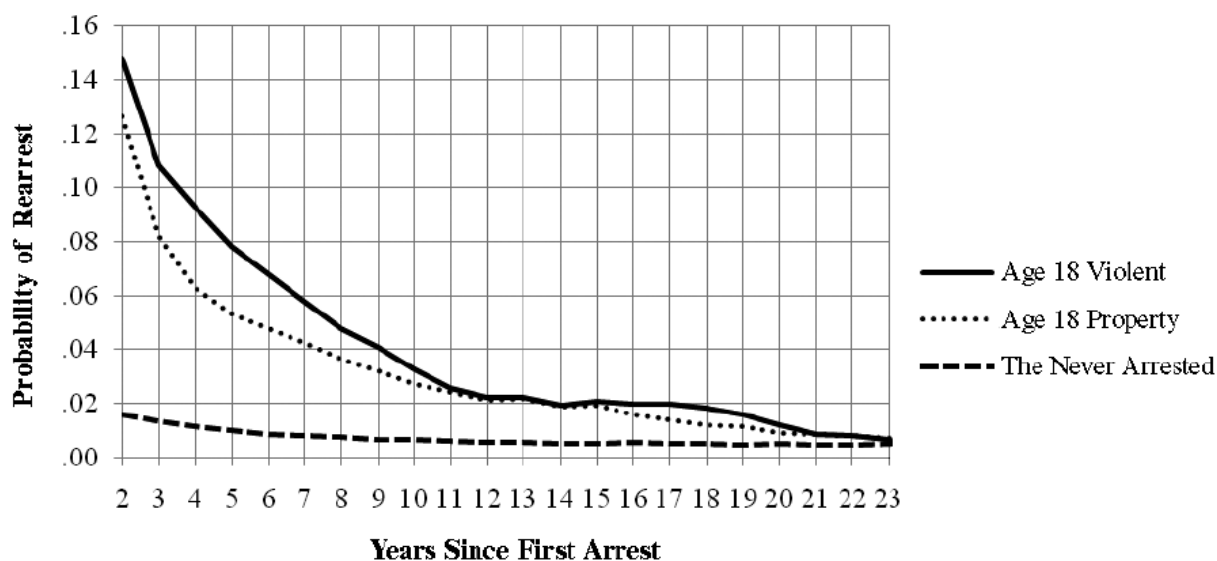
Figure 6. Probability of re-arrest over time since first arrest for 18 year old offenders for violent crime and property crime. The 'never arrested' population will be explored in a later section

Summary

These research findings indicate that offence type has an influence on the decay over time in the probability for an individual to be re-arrested at some point in the future. The results are not conclusive, but tend to indicate that violence offences and property offences should be treated a little differently in the risk they pose for an offender to re-offend at some point in the future – those who commit violent offences have a higher risk of re-offending in comparison to property offenders, but these levels decline to a low level where they converge after 11 years following the previous arrest.

Potential impact on guidance

Even though there is the need for further research in order to build a more robust evidence-base, the existing evidence suggests that offenders who commit violent offences may need to be subject to longer periods of time before the information on their prior offence(s) is reviewed i.e. their redemption period needs to be longer.

> **Redemption and the redemption period** – in desistance terms this is a word that can be used to define the process of a person 'going straight' (Blumstein and Nakamura, 2009). The redemption period is thus the same as the 'clear period' as defined in the MoPI Guidance (NCPE, 2006) as being the period, the end of which, defines the point when the person who had committed a previous offence can now be released from bearing the mark of crime.

5.3. Time taken to reach risk of offending level that is the same as the general population

The next set of research findings explore the length of time it takes to reach a risk of offending level that is the same as the general population (recall that this general population includes offenders). It is only the Blumstein and Nakamura (2009) research findings that offer some evidence on this. Figure 7 shows the time it takes for an individual who's first arrest was for robbery to reduce their probability of re-arrest to the same level of risk of offending for the general population. This is shown for offenders aged 16 years at the time of arrest (figure 7a) and 18 years (figure 7b). These figures

show that for those arrested for burglary when they were 16 years of age, the probability of re-arrest is the same level as that of the general population after 4.9 years, and is 7.7 years for 18 year old robbery offenders.

$$T^* = 4.9, \mathrm{h}(T^*) = .105$$

(a)

$$T^* = 7.7, \mathrm{h}(T^*) = .096$$
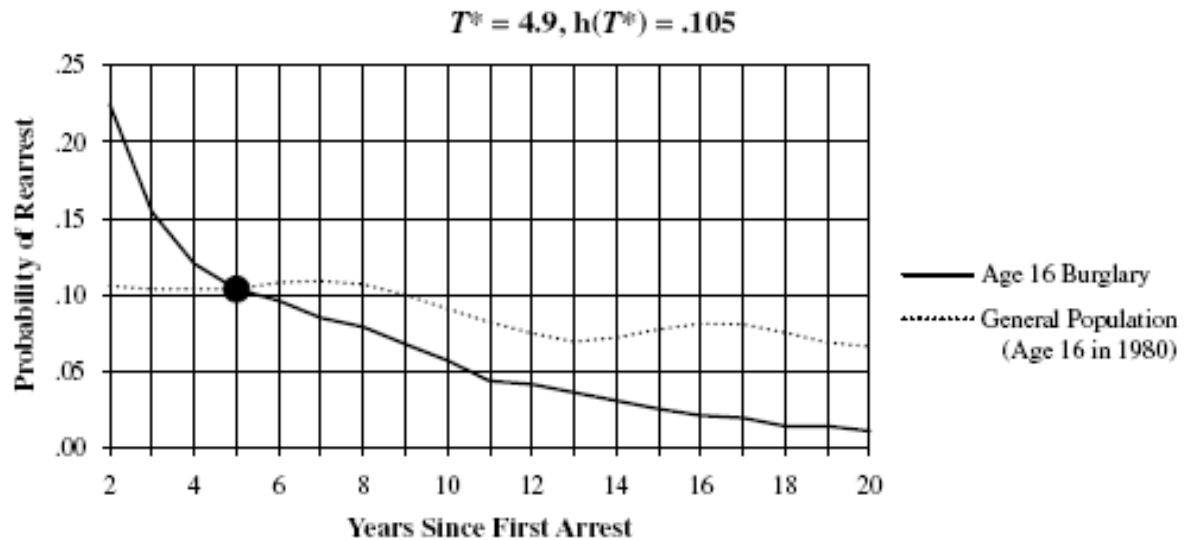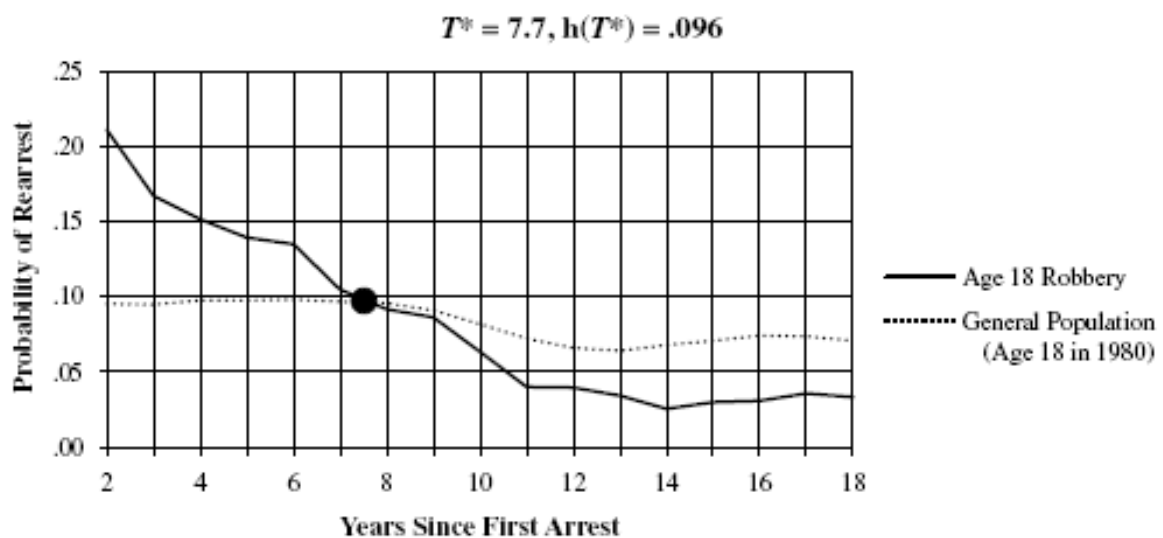
(b)

Figure 7. Probability of re-arrest and change over time for (a) 16 year old burglars and (b) 18 year olds who committed robbery, against their respective general population probability of arrest levels. Source: Blumstein and Nakamura (2009)

Further results are provided in table 3. Firstly, these results provide a quantifiable measure for considering a suitable 'redemption' period after a previous offence i.e. the point when recidivism risk for an individual is the same as a suitable comparison group. For example, it suggests that for a 20 year old who commits a robbery, a suitable period of redemption should be approximately four and a half years.

Secondly, it provides additional evidence and value on two previous findings:
- The younger the age the longer the 'redemption' period
- Robbery exhibits a longer redemption period than burglary, which is similar to aggravated assault, across the 16-20 age range analysed in the New York State study.

First Offense	Age at First Arrest		
	16	**18**	**20**
Robbery	8.5 (.103)	7.7 (.096)	4.4 (.086)
Burglary	4.9 (.105)	3.8 (.097)	3.2 (.086)
Aggravated assault	4.9 (.105)	4.3 (.098)	3.3 (.086)

Table 3. Redemption periods for robbery, burglary and aggravated offenders in relation to the age at first arrest. Source: Blumstein and Nakamura (2009)

Summary
These results show that it is possible to measure the 'redemption' period and to incorporate the influence that age and offence type plays on recidivism and desistance. The results indicate that younger people have a longer redemption period than older people and that these periods are influenced by the type of offence that was committed, although at this stage no conclusions can be made about general offence groups.

Potential impact on guidance
The point when police information is necessary for review could be between 3.2 to 8.5 years, with the variation being determined by the age of the offender and the offence they committed:
- Younger offenders should wait longer than older offenders for their police information to be reviewed (subject to them being cleared of crime for their entire redemption or clear period)
- Alongside age, the type of offence committed should have an influence on the length of time between the last offence and the review point. However, at this point the research is not clear in prescribing differences between offence types in to broad groups e.g. serious violent crime, less serious violent crime, serious acquisitive crime, serious drugs offences, and terrorist offences

5.4. Time taken to reach risk of offending level that is the same as the population that has never been arrested
The Blumstein and Nakamura (2009) research from New York State and the research from Racine provide useful research findings for considering the length of time it takes for offenders of a certain age, and by crime type to reach a risk level of re-offending that is the same as the population that has never been arrested. The hazard rate will never reach the same rate as for those who have never been arrested but can be measured against whether it is 'close to' this population. This measure of closeness can be calculated by using statistical significance thresholds i.e. are we confident that the risk of a person who has offended previously is about the same as that of the population that has never been arrested. This is determined by measuring if the hazard rate falls within the bounds of a specified confidence level. In the New York State sample, Blumstein and Nakamura (2009) were reasonable in their application of a 95% confidence level. The results showed the following (see also figure 8):
- Violence offences committed by 16 year olds – it takes 8 years for the hazard rate to reach the 95% upper bound i.e. the redemption period is 8 years
- Property offences committed by 18 year olds – it takes 4.8 years for the hazard rate to reach the 95% upper bound

- Property offences committed by 20 year olds – it takes 3 years for the hazard rate to reach the 95% upper bound.

The trends in these results naturally follow those in s5.3, but because the comparison population does not include offenders the redemption period places greater rigour on the length of time before the offender is considered to have been 'redeemed' i.e. redemption periods are slightly longer. For example, while the offence types are not directly comparable, 18 year old burglars were calculated to have a redemption period of 3.8 years when compared to the general population, whilst for property offenders that were compared against the non-arrest population had a redemption period of 4.8 years.
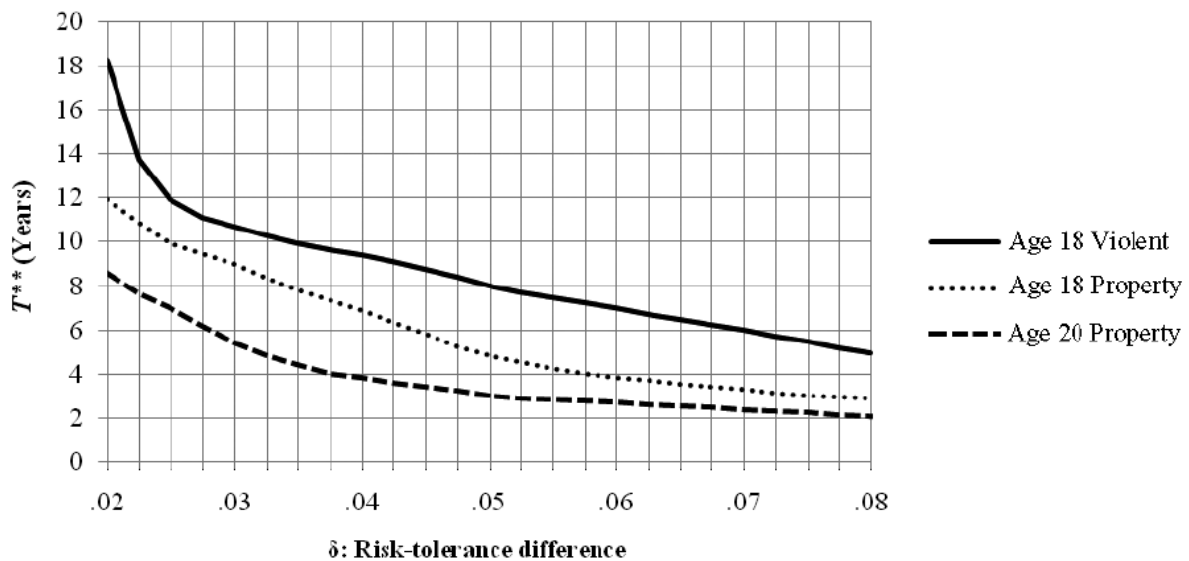

Figure 8. Hazard rates for violent and property crime for offenders aged 18 and 20 when first arrested in relation to the never arrested population. A risk tolerance of 0.05 indicates the time when the hazard rate for these offenders is close (to a statistical confidence level of 95%) to that of the never arrested population.

The research from Kurlychek et al. (2007) add to these results by considering the same measures for their Racine subjects. The results are listed below, showing when the hazard rate returned to the same level of the hazard rate for the non-offending population, based on using the upper bound of a 95% confidence level:
- Age when arrested = 17; age when hazard rate was same as non-offending population = 20
- Age when arrested = 18; age when hazard rate was same as non-offending population = 22
- Age when arrested = 19; age when hazard rate was same as non-offending population = 23
- Age when arrested = 20; age when hazard rate was same as non-offending population = 24

Therefore, 4 years was seen as the period when there was no significant difference (using a 95% confidence level) between a person who had previously offended and the non-offending population, with this being generally consistent across the 17 to 20 age range of offenders.

Summary

Comparisons between the decay on the hazard rate over time since the previous arrest with a non-arrest population provides more rigour to the measure of the redemption period. There is also the advantage and flexibility to apply more rigour by using higher levels of confidence to determine the redemption period i.e. 99% rather than 95% confidence level. These results indicate that suitable redemption periods can range between 3 to 8 years, and are influenced by age and offence type as previously reported.

Potential impact on guidance

The point when police information could be considered for review could be between 3 to 8 years, dependent on the age of the offender and the offence type. This is based on the assumption that a useful quantitative measure for determining the threshold for when police information needs to be reviewed is the redemption period, that compares the risk of a person who has committed an offence previously against the non-arrest population, and determining when the two are close as defined by being within the bounds of the 95% confidence level. For practice, it is not being suggested that police forces calculate this measure separately for each record, for each offence type and age of offender, but that further empirical research would be useful to help determine suitable groupings that provide a robust rationale that justifies national review periods and the decision on whether to retain or dispose of police information.

While the research is not yet conclusive in helping to determine differences between broad groups of offences and ages, the research does suggest that the review period for young people should be longer than it is for older people.

6. Research findings generated in relation to the retention of data on the DNA database

6.1. DNA retention after S and Marper (Pease, 2009)

Pease's research provides two particular findings that require consideration in relation to the findings documented in this report:

- Based on the analysis of those from who DNA samples were taken, the seriousness of the initial offence for which a person was arrested does not necessarily predict the seriousness of subsequent offences with which the person may be associated. This is supported by a wealth of other research literature that shows that offenders are not homogeneous in their activities and commit many different acts of crime and other forms of illicit behaviour i.e. offenders show a high degree of versatility in the type of offending behaviour they perform (for example see Blumstein et al, 1988, Paternoster et al 1998, and Bouhana, 2003). In the context of the review, retention and disposal of police information this specifies the need to set the length of review terms in such a way that an offender of a minor crime who at some later point commits a more serious crime is not 'redeemed' for their minor offence too early for the individual's previous criminal record not to be linked to the most recent offence. It is considered that by setting the length of any review term by basing it on the probability that the re-offending risk is not significantly different to the risk of offending by the non-arrest population provides an effective means of retaining information in these circumstances. That is, whatever offence an individual commits, their recidivism ensures that their information is retained until they reach a point that their re-offending stops and they have seen out their period of redemption.

- The research reported on the findings from the Kazemain, 2005 and Kazemain, Farrington, LeBlanc and Pease, 2007 on the longitudinal study of cohorts from Cambridge. It reported that deletion after six years would leave just over half of the cohort's crime yet to be committed. However, although access to the original work could not be sought, in the context of the processes for reviewing and retaining police information it does not consider the consecutive process that is applied to review terms and how this is influenced by recidivism. Any review term for police information is based also on any previous offending in that the review term is reset if a new offence is committed i.e. what may have been an initial 6 year review term and against which two years have passed is set as a new 6 year review term from the date of the new offence. So in the context of police information, detection possibilities are not limited because if an offender re-offends, their review term is reset and information relating to their previous criminal history is retained.

6.2. Home Office Impact Assessment research relating to the ECtHR ruling on S and Marper

Access could not be made to this report but certain key findings were interpreted from the Keeping the Right People on the DNA Database report (Home Office, 2009). This analysis looked at a cohort of offenders who had been convicted of an offence in 2001. The reconvictions for this cohort were investigated in each of the following 6 years with extrapolations for future years. The research suggested that it takes 14-15 years before the risk of the offending is at the same level as that of the general population. This is a significantly larger figure than has been reported in the US studies (section 5). There was also no indication of whether this varied by age, offence type or what methodology was used to determine the 'general population' and how convergence

was measured. As far as I am aware it has not been peer reviewed either, while the Blumstein and Nakamura research appears in the highest rated criminology journal 'Criminology'. This is not to say that I think the Home Office results are wrong, but they do need review and critiquing to ensure they are reliable.

7. Parallels with other areas of information management

The literature review has identified two areas of business that have parallels with reviewing information to inform a necessary purpose, particularly in terms of deciding on what information should be used and what should not, and what factors influence a final decision.

7.1. Personal finance

Creditors rely on age and an individual's past reliability in paying bills on time, their level of debt, and ability to meet financial obligations to calculate and assign a credit score. This score is then used to determine future lending opportunities. They explicitly restrict the time period for which prior behaviour is considered to be relevant. Credit scores typically look back 7 years. Indeed, Experian, Equifax, TransUnion and Fair Isaac, four of the largest credit rating companies in the world all use a method whereby 'old' derogatory credit information carries less and less weight in the calculation of credit risk scores as the time since the reason to consider a decision on finance increases (Kurlychek et al, 2006 and 2007). In other words, these agencies place more weight on recent behaviour and less weight on older behaviour. The review of a person's credit effectively draws from intelligence that is periodically collected or comes to light ad hoc, and reviews this credit position when there is a need i.e. when a person applies for finance.

7.2. Car, contents and building insurance

A key component that relates to deciding on the premium for personal car insurance is information on the driver's age and on violations and accidents, asking for information in the last 3-5 years rather than older because of the recognition that it has little impact on future risk. The same process applies for contents and building insurance with previous history being used to inform future risk (e.g. history of being burgled or flooding), but with greater weight being given to more recent events and allowing old events to become 'spent'. The review of a person's insurance also effectively draws from intelligence that is periodically collected or comes to light ad hoc, and reviews this position of risk annually at the point when the policy is to be renewed.

Very little information is published on the methodologies that these two areas of business apply due to trade competition, however future empirical work should attempt to explore the processes that these two areas of business apply and their lessons learned.

8. Issues with the existing research and recommendations for future work

To date research that helps to provide particular evidence and supporting justification on how long police information should be retained is fairly thin on the ground. New research has emerged in recent years, but this needs to be built upon in order to provide a clearer and more substantial evidence-base on which to be confident to determine decisions on the review, retention and disposal of police information that can be sustainable.

The current research findings that are available are not without their flaws, but we have drawn from what we consider to be the more robust findings from this research in this report. Issues with the current research are commented on in appendix 2.

We list what we consider to be the main areas for future work that can help inform the rationale behind the length of period that police information should be retained for:

- The need to repeat the Blumstein and Nakamura (2009) methodology on a longitudinal study that uses data from England and Wales and explores the influence that age and offence type (more finely than existing studies) has on the redemption period.
- An exercise to explore the methodological processes that creditors and insurance companies apply in their review, retention and disposal of personal information for these two business purposes
- The need to assess the volume of records that may be affected by making any changes to the existing MoPI review period guidelines. This would need to consider the associated costs and the practicalities of implementation. This would therefore require consultation with police forces, in particular the Information Management for the Police Service forum.
- The need for research that quantifies the detection value that old police information has over new police information. While the information may be of value for some unforeseen investigate purpose, is it just as likely that this or similar information of the same value could come to light by chance? In terms of 'significance' and 'chance', we mean whether there is a scientific statistical sense in whether the information offers something that no other information could have offered.
- There is great value in retaining information beyond any determined deletion period for other research purposes. The NPIA should review the practicalities and value in archiving police information in a depersonalised, albeit data rich and precise format to make it available for any future longitudinal studies or unforeseen policing purposes. Depersonalised data is not subject to the same legislation as personalised data but if sanitised without losing too much value in the information that is held it can continue to be a rich source of information that could inform future policing and community safety purposes (see forthcoming Home Office guidance on information sharing for community safety that includes examples of depersonalised yet detailed datasets). This not only includes studies such as those referred to above but other purposes.

In addition, the following questions were posed at the outset of the research exercise but no suitable literature of use could be found on these matters:
- *What are the key reasons that lead to a detection? Where does 'old' police information feature in this?*

- *Does retention of police information offer public confidence that those guilty will be found quickly and dealt with effectively*
- *Does the retention of data create a deterrent to offending or re-offending?*
  - *Have re-offending levels changed as a result of data retention rules changing?*

9. Considerations and conclusions

Assessing whether to retain information must follow three key points:
- Is the infringement of an individual's privacy created by the retention of their personal information proportionate to the necessary policing purpose?
- Is there confidence that information that will be disposed of is no longer necessary for the policing purpose?
- Is a consistent approach being followed in the review, retention and disposal of police information?

The research exercise offers the following conclusions with respect to these three points and the aims of this exercise:

1. There does not seem to be any sense in disposing of undetected crime information at any point until evidence is produced otherwise that information that is retained for a certain length of time has no value in aiding the detection of crime or other policing purpose.

2. While there is strong evidence that previous offending behaviour predicts future offending, this should not only be reviewed in relation to recidivism, but also in relation to desistance. That is, many people offend, some go on to offend time again time again, but most do not ever offend again.

3. To date there is a thin volume of albeit sound research evidence that can help to justify the length of time that police information should be retained before it is reviewed. This does though need to be added to with UK data that goes further than the Home Office impact assessment that was generated for the DNA database court case.

4. The research shows that 'clear periods' should not only be determined as a function of the offence type i.e. the existing MoPI offence Review Groups, but also as a function of the age of the offender. While at this stage this may be difficult for many forces to do, the evidence shows that age is a clearer, stronger and more consistent predictor of recidivism and desistance.

5. The decision behind when to retain or delete police information requires not only the need to ensure it meets a policing purposes but to also ensure that the decision is informed by the necessary legislative conditions. This needs to be more effectively translated into the rationale behind why police information should be retained for a certain length of time in order to show evidence that the justification for retention or deletion is proportionate between these two requirements. The two requirements should not be seen as competing, but instead can be used to help set guidance that is more logical and easier to justify.

6. Any review term should be consecutive to other offences that are committed following the first offence i.e. if an individual offends again within the review term for a previous offence then the review term is reset against the date of the most recent offence, and all information that relates to the offender from the previous offence is retained and not considered for review until the expiration of the new

review term. This extends the existing MoPI guidance and provides a practical means of retaining information on persistent and prolific offenders.

7. Comparisons between the offender population and their behaviour recorded in police information and the non-arrest population provide a rigourous means of helping to determine if police information is necessary for policing purposes. Calculations between these two populations can be for measured to determine the point when police information can be reviewed to decide on its necessity. The comparison with the non-arrest population also provides a means of considering more stringent conditions for certain policing purposes - the methodology in comparing these two populations helps to determine when there is no statistically significant difference between them, but with the flexibility to set the level of statistical significance. For example, for minor offences the statistical significance level could be set to 95% but for more serious offences it could be set at 99% and for matters of serious public protection it could be set at 99.9%. This would help to determine clearer and non-arbitrary terms on the length of time that must pass before police information on an offender is reviewed.

8. At present, the review terms of 6, 10, and 50 years and review until aged 100 that are applied under certain conditions, whilst being of the correct order of magnitude, are considered to be too arbitrary and will have the continual risk of being contested. However, we do conclude the following from this research exercise:
    a. the 6 year term that applies to less serious offences fits under a suitable legislative condition (i.e. the Limitations Act) and should be used as the minimum review term, but should not necessarily be a blanket term of length. In several cases it is suggested that there is justification to set a longer term when the offence has been committed by a young person or shorter when committed by an older person
    b. Any 10 year term in the MoPI guidance appears to be based on a fairly thin rationale. Evidence from this research provides the two following suggestions:
        i. There needs to be a more careful consideration of the offence types that this term applies to, to ensure that those that fall into Review Group 1 and Review Group 2 are appropriate. One of the main complaints from police forces was that there is inconsistency between these Review Groups and other offence groupings that are used across the policing service and that for several offences the content of the Groups were inappropriate. Further research into the redemption period for offence types could help inform this and provide a more scientific rationale behind the groupings
        ii. This research indicates that if clearer groupings on offences can be determined this can then help further inform the influence that the age of the offender has on the length of the review term. The research shows that a blanket 10 (or any other number) years term may be inappropriate, particularly for offenders that are older than young adults
    c. Any review periods should be consistent with other data review and retention periods used across the police service. For example, it does not make sense for the proposed DNA profiles of those arrested for serious violent and sexual offences or terrorism-related offences (but not

convicted) to be retained any longer than after the deletion of other police information, and vice versa.

9. While the consideration of the age of the offender for review term periods adds another dimension to be considered, the research evidence shows that it is a vital factor influencing recidivism and desistance. However, it is also recognised that any guidance on the review periods for police information needs to be straightforward and simple to apply. It is felt that this can be possible with due diligence to the practicalities of implementation, but with the overriding principle being that its consideration in the review, retention and disposal of information provides a stronger and evidential rationale on police information management practice and policy.

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Glossary

Data controller: a data controller is defined in the Data Protection Act 1998 as the individual within an organisation who determines the purposes and the manner in which personal information are, or are to be, processed. In a police force this is the chief officer.

Relevant authority: Section 115 of the Crime and Disorder Act 1998 identifies 'relevant authorities' between who information can be shared for the purposes of community safety. The relevant authorities are defined as:
- Police forces
- Police authorities
- Local authorities – district councils, borough councils, unitary authorities and county councils
- Probation boards and trusts
- Fire and rescue services
- Health authorities – Primary Care Trusts, Strategic Health Authority, NHS Trusts and NHS Foundation Trusts
- Registered Social Landlords

Management of Police Information (MoPI): helping forces to meet common standards for police information management through a statutory Code of Practice and associated guidance.

Police National Database (PND): The PND offers the capability for Police Forces to share, access and search local information electronically. It therefore provides forces with a single access point for searching information held across all of the forces' main local operational information systems and national police systems, overcoming artificial geographical and jurisdictional boundaries. The PND should therefore increase operational effectiveness and decrease risk, and in turn help to improve public safety and security.

Statute of Limitations: A statute of limitations is a statute in a common law legal system that sets forth the maximum period of time, after certain events, that legal proceedings based on those events may be initiated. In civil law systems, similar provisions are usually part of the civil code or criminal code and are often known collectively as "periods of prescription" or "prescriptive periods." A common law legal system might have a statute limiting the time for prosecution of crimes called misdemeanours to two years after the offense occurred. In that statute, if a person is discovered to have committed a misdemeanour three years ago, the time has expired for the prosecution of the misdemeanour. Or a contract can only be sued upon for breach of performance from six years after the contracted performance became due.

Appendix 1 - Rehabilitation periods and scenarios

Further convictions

If a rehabilitation period is still running and the person concerned commits a minor offence, the minor offence will not affect the rehabilitation period still running. The rehabilitation period for each offence will expire separately. For example, if someone had received a two year probation order, then one year later was fined for a minor offence, the probation order would become spent before the fine. Therefore once the probation order was spent, only the fine would need to be disclosed until it became spent.

However, if the further offence is one that could be tried in the Crown Court, then neither conviction (even if the first one is for a minor offence) will become spent until the rehabilitation periods for both offences are over. For example, if someone had received a two-year probation order, then one year later was fined for a serious offence, both convictions would have to be disclosed until the fine became spent. If the further conviction leads to a prison sentence of more than 2 1/2 years, neither conviction will ever become spent.

Concurrent and consecutive sentences

If an offender receives two or more prison sentences in the course of the same proceedings, the rehabilitation period will depend on whether they run concurrently or consecutively. For example, two 6 month terms ordered to run consecutively are treated as a single term of 12 months, giving a rehabilitation period of 10 years. But two such sentences ordered to take effect concurrently are treated as one sentence of 6 months, giving a rehabilitation period of 7 years.

Appendix 2 - Issues with the existing research

There are several important issues and discussion points that have been raised in the review of the literature that are worthwhile to record and consider.

- None of the research to date takes into account those persons from the local who get arrested outside of their jurisdiction. This was a point that was raised in the current processes for reviewing information recorded by police forces as beng practically difficult. However evidence shows that:
  - offenders do not tend to travel far to commit crime and most likely commit offences in the neighbourhood or local town centre (Chainey and Ratcliffe, 2005; Wiles and Costello, 2000; Rossmo, 2000)
  - Newcastle, UK: 9 out of 10 offenders who had committed a criminal damage offence between October 2007 – January 2006 lived in the district of Newcastle. Less than 9% lived in an area outside the Northumbria Police jurisdiction (Safer Newcastle Partnership, 2008)
  - US: 7.6 % of recidivism prisoners were rearrested out of state (Langan and Levin, 2002)
  - US: prisoners released from 11 state prisons in 1983, 10% of them were arrested out of state within 3 years of their release (Orsagh, 1992)

  The impact of including these offences in recidivism measures is that it is likely to increase the clear period, but not by a significant amount.

- The main and relevant research that has been produced to date is based on arrests and not convictions. If the analysis was only based on convictions then it is likely to have the impact of increasing the clear period because people who are convicted are more likely to be re-arrested in the future (Blumstein and Nakamura, 2009)
- The measures need to be adjusted to account for time in custody, however this is considered to have a small impact upon results as the analysis is based on the first arrest which is more unlikely to lead to a conviction (Blumstein and Nakamura, 2009)
- The areas for which the research has taken place may be very different to UK areas, calling for the need for studies like those reported on in this report to be repeated in the UK and elsewhere
- The New York State study was based on arrests made in 1980, therefore there is a need to repeat for other years (although the progressive curve methodology helped to correct for this) and other times in the year to account for any seasonality impacts.