Candidate Number: Pol - 1401

Ralph Jackman

Fitzwilliam College

Supervisor: Dr. Tim Coupe



## University of Cambridge Institute of Criminology

# Measuring harm in a cohort of sex offenders in Norfolk

Submitted in part fulfilment of the requirements for the Master's Degree in Applied Criminology and Police Management

December 2015

#### Abstract

The study aims to describe the characteristics of sex offenders living in the community in Norfolk, examine the offences they have committed and the harm they have caused. Existing methods of establishing the risks posed by sex offenders and the match between these and offender harm are critically evaluated with a view to providing insights into how the management of such offenders may be improved. It is based on police records and data from the national Sex Offender Register for a sample of 1098 sex offenders registered in Norfolk Constabulary jurisdiction during April 2014. The number of days each offender was sentenced to imprisonment is used to provide measures of cumulative harm and of average harm per offence.

Most offenders had committed offences classified as causing low or medium levels of harm. However, a third had a history of serious sex offending, and were responsible for inflicting 80% of the combined harm through prior sex offending. These offenders were more versatile in terms of offending, committing a wider range of crimes, both sexual and non-sexual offences. In addition, the more harmful offenders were those who offended against all categories of victim; adult, victim and image related offending. Those who committed less serious offences, such as indecent exposure were less versatile.

While twice as many serious sex offenders are imprisoned as are living in the community, the latter represent over an eighth of the sex offender sample living at home and are the responsibility of Norfolk Constabulary Offender Managers.

Tools that predict risk of reconviction, rather than harm, are currently used in Norfolk, as in other UK police jurisdictions, for determining the minimum number of visits received by sex offenders living in the community. Offenders who have committed serious offences and caused greater harm receive fewer visits because they are assessed as having lower risks of reconviction than those who have committed less harmful, minor sex offences. The study examines the evidence and rationale for using the harm offenders have caused as well as reconviction risk to guide offender management regimes.

#### Acknowledgements

It is fair to say that this thesis became, at times, a laborious and overwhelming mission. Against a backdrop of parenthood for the first time, a deadline from my publisher for a sequel in my fiction series and a promotion at work, finding the time and energy to achieve even the manual data trawl before learning statistics and analysing the data properly, required the significant support of a multitude of people.

I thank them all, but especially my wife Becca and daughter Esme Rose for their patience, my friends on the course for their ceaseless morale boosting, my supervisor Tim for his wisdom and patience as I was determined to understand the analysis properly and Iain Cooper, for his diligence and forbearance in supporting me throughout. I am also extremely grateful to Norfolk Constabulary for granting me this opportunity.

I never lost sight of the mission, which was to try to help the Constabulary manage sex offenders in the best way they can and help prevent future harm and future victims. Nameless and anonymous though these victims were, they too inspired me to keep at it.

## Contents

Abstract1
Acknowledgements
Contents4
List of Tables7
List of Figures
List of Abbreviations9
Introduction10
Context10
What is sexual offending?11
The United Kingdom Sex Offender Register11
How are RSOs currently managed by Norfolk Constabulary?12
Why is this topic important?13
How can this thesis help?15
Structure15
Literature Review17
Descriptive Analyses
Risk Assessment Tools
First Generation – Unstructured Professional Opinion21
Second Generation – Actuarial risk scales21
Third Generation - Dynamic Risk Assessments
Summary
Crime Severity Indexes32
Literature Review Summary35
Methods
Data Sources
ViSOR – Capturing the Demographics
Calculating the Crime Harm from Sentencing Guidelines – The Cambridge Approach
Calculating the Crime Harm from actual sentences received – The Jackman Approach40
PNC
Processing the Data43
Analytical Procedures44
External Validity44

Results	45
Description of the Data	45
Research Question 1: What are the Demographic Characteristics of RSOs in Norfolk?	47
Age	47
Gender	48
Nationality	49
Ethnicity	50
Research Question 2: Can application of a harm index contribute to a better method of identify RSOs which police should 'target' to protect the public?	/ing 51
Risk of Reconviction categories as derived from various available tools	51
How many RSOs have re-offended and what Risk Matrix 2000 category were they?	57
Measuring the harm of sex offending	60
Applying the Crime Harm Indexes to the RSOs	61
How do RSO risk ratings derived from application of the Risk Matrix 2000 compare with the levels of harm inflicted by offenders?	65
Does the theory of the 'Power Few' apply to the amount of harm caused by RSOs?	67
Are Offender Managers downgrading lower harm offenders through the introduced ARMS assessments?	73
Research Question 3: What are the offending patterns of the cohort of RSOs in Norfolk?	75
Which offences were committed by what Risk Matrix 2000 Category of RSO?	75
Do RSOs commit only sexual offences?	78
Is there a difference in risk rating between multi-category offenders and solely sexual offenders?	78
Do RSOs specialise in a specific sexual offence?	79
Do RSOs specialise in the same category of victims?	80
Summary	85
Discussion	88
Limitations and Strengths	88
Limitations	88
Strengths	91
Answers to the Research Questions	92
What are the characteristics of RSOs in Norfolk?	92
Can application of a harm index contribute to a better method of identifying RSOs which pol should 'target' to protect the public?	ice 92
What are the offending patterns of the cohort of RSOs in Norfolk?	94

	Policy Implications	95
	'Targeting the wrong offenders?'	96
	Combining likelihood with harm	98
	A 'Power Few' Strategy?	98
	Specialists	99
	Vulnerable adult offences	100
	Multi-victim category offenders	100
	Further research	101
	Dates	101
	Replication	101
	A new Risk Matrix which combines likelihood and harm	101
Co	onclusion	103
	List of References	106
	Appendices	111
	Appendix A – Data Processing Agreement	111
	Appendix B – Crime Harm Index Scoring	126
	Appendix C – Process Decisions when applying the Cambridge Crime Harm Index	127
	Appendix D – Sexual Offence Groupings	129
	Appendix E – Analytical Procedures	130

### **List of Tables**

Table 1 – Predictive Accuracy of various actuarial instruments	.26
Table 2 – Projected True Rates of Sexual Recidivism by Risk Matrix 2000 S-scale Risk Categories	.27
Table 3 – Sexual Offences with more than 100 convictions within the cohort of Norfolk RSOs	.46
Table 4 – Genders of Norfolk RSOs	.48
Table 5 – Nationalities of Norfolk RSOs	.49
Table 6 – Self-Defined Ethnicity Codes of Norfolk RSOs	.50
Table 7 – Number of RSOs at Liberty or in Prison by Risk Matrix 2000 risk of reconviction category	.51
Table 8 - Number of RSOs at Liberty or in Prison by Dynamic Risk Assessment risk of reconviction	
category	.53
Table 9 – Change in risk level between Risk Matrix 2000 category and Dynamic Risk Assessment	.53
Table 10 - Number of RSOs at Liberty or in Prison by ARMS risk of reconviction category	.55
Table 11 – Percentage of RSOs who fall into Risk Categories as defined by Risk Matrix 2000 and	
ARMS	.56
Table 12 – Number of RSOs whose risk category was Upgraded, Downgraded or Unchanged	
following ARMS assessment	.56
Table 13 – Number of RSOs who have reoffended by Risk Matrix 2000 risk of reconviction category	y57
Table 14 – Mean Prolificacy Rate per Risk Matrix 2000 Category	. 59
Table 15 – How many of the 'Power Few' 363 are in Prison by Risk Matrix 2000 risk of reconviction	۱
category	.70
Table 16 – Number of RSOs at Liberty or in Prison cross-tabulated with being in the 'Power Few'	.72
Table 17 – Number of offences committed by RSOs by Risk Matrix 2000 Category	.75
Table 18 – Number of RSOs who commit solely sexual offences	.78
Table 19 – Number of RSOs who are solely sexual offenders or multi-category offenders by Risk	
Matrix 2000 Category	.79
Table 20 – Number of RSOs who specialise in certain types of victims	.80
Table 21 – Means of the cumulative Jackman CHI scores for RSOs in the various victim specialism	
categories	.81
Table 22 - Means of the average Jackman CHI scores per offence for RSOs in the various victim	
specialism categories	.81
Table 23 – Crime Harm Scores per offence	126
Table 24 – Table demonstrating which sexual offences were grouped into victim categories for	
further analysis	129

## List of Figures

Figure 1 – Sexual Offences with more than 100 convictions within the cohort of Norfolk RSOs46
Figure 2 – Age of Norfolk RSOs at snapshot and at initial registration47
Figure 3 – Number of RSOs at Liberty or in Prison by Risk Matrix 2000 Risk Category
Figure 4 - Number of RSOs at Liberty or in Prison by Dynamic Risk Category
Figure 5 – Number of RSOs who have reoffended by Risk Matrix 2000 Category
Figure 6 – Mean Prolificacy rate by Risk Matrix 2000 Category
Figure 7 – The Top 20 Offences by Average Cambridge Crime Harm Score
Figure 8 – The Top 20 Offences by Average Jackman Crime Harm Score61
Figure 9 – Cumulative Crime Harm by Cambridge and Jackman Indexes, rank ordered within Risk
Matrix 2000 categories
Figure 10 – Correlation between Cumulative Cambridge Crime Harm Scores with Jackman Crime
Harm Scores of RSOs64
Figure 11 – Means of Cumulative Jackman Crime Harm by Risk Matrix 2000 rating (1 = Low, 4 = Very
High)66
Figure 12 – Means of Average Jackman Crime Harm by Risk Matrix 2000 Category (1 = Low, 4 = Very
High)67
Figure 13 – Pareto chart showing cumulative Crime Harm by Norfolk RSOs
Figure 14 – Pareto chart showing average Crime Harm per offence by Norfolk RSOs69
Figure 15 – Average Harm per offence of 'Power Few' RSOs by years since last offence70
Figure 16 – Number of RSOs of the 'Power Few' 363 in Prison or at Liberty by Risk Matrix 2000
category71
Figure 17 – Number of RSOs in Prison or at Liberty by presence in 'Power Few' or not
Figure 18 – Number of Adult Victim Offences by Risk Matrix 2000 Category77
Figure 19 – Number of Child Victim Offences by Risk Matrix 2000 category
Figure 20 – Number of Image Offences by Risk Matrix 2000 category
Figure 21 – Number of RSOs who committed a single sexual offence a number of times
Figure 22 - Means of the cumulative Jackman CHI scores for RSOs in the various victim specialism
categories
Figure 23 - Means of the average Jackman CHI scores per offence for RSOs in the various victim
specialism categories
Figure 24 - Means of the cumulative Jackman CHI scores for RSOs in the single victim specialism
categories

## List of Abbreviations

ARMS	Active Risk Matrix
CHI	Crime Harm Index
COP	College of Policing
MnSOST-R	Minnesota Sex Offender Screening Tool – Revised
NCMEC	National Center for Missing and Exploited Children
NPIA	National Police Improvement Agency
PNC	Police National Computer
PPU	Public Protection Unit
RRASOR	Rapid Risk Assessment for Sex Offence Recidivism
RSO	Registered Sex Offender
SACJ	Structured Anchored Clinical Judgement
SOA	Sex Offenders Act
SORAG	Sex Offender Risk Appraisal Guide
TIC	(Offences) Taken Into Consideration
ViSOR	Violent and Sex Offender Register

#### Measuring harm in a cohort of sex offenders in Norfolk.

#### Introduction

#### Context

It is the responsibility of the police to assess and manage risk to reduce the likelihood of harm and, where possible, prevent harm occurring altogether (College of Policing, 2015).

Sexual offending is one of the most harmful types of criminal behaviour. Because of this, the Sex Offenders Register was created which requires 'notification of information to the police by persons who have committed certain sexual offences' (*Sex Offenders Act 1997*, p.1). This information is to assist agencies in tracking and monitoring those convicted of sexual offences and helping them 'to protect the community from sex offenders' (Home Office/Scottish Executive, 2001: 11).

The objective of this thesis is to assess the harm caused by a cohort of sex offenders in Norfolk. It is based on a time specific sample of 1098 Registered Sex Offenders (RSOs) managed by Norfolk Constabulary, who formed the cohort as at 4<sup>th</sup> April 2015. Data relating to these RSOs is analysed using descriptive and inferential statistics with the purposes of: profiling sex offenders in terms of demographics, offending patterns, versatility, prolificacy and harmfulness; evaluating the existing approach used to allocating resources that manage the RSOs; critically evaluating the Cambridge Crime Harm Index (CHI) and assessing the merit of using harm measures based on offending histories to identify the most harmful offenders; all with the purpose of improving the police's ability to 'target' their resources and prevent future harm.

#### What is sexual offending?

Sex offences are crimes which are covered predominantly by the Sexual Offences Act 2003. 71 offences ranging in severity are specified. The first part of the Act details these sexual offences, whilst the second part covers specific offenders, for example care workers, with an emphasis on the protection of vulnerable individuals.

The offences are wide-ranging, from rape, penetrative and non-penetrative assaults, to exposure, voyeurism, sexual intercourse with an animal or a corpse and sexual activity in a public lavatory.

Child victim offences are covered. Any sexual intercourse with a child under 13 is treated as rape and, along with sexual assaults, there are several other child victim offences including sexual activity with a child, causing a child to watch sexual activity and meeting a child after grooming. Indecent images of children and the abuse of children through prostitution or pornography are detailed and familial child offences include sexual activity with a child family member or inciting a child family member to engage in sexual activity.

Other categories cover exploitation of prostitution including causing prostitution for gain or keeping a brothel, trafficking into, within or out of the United Kingdom for sexual exploitation, preparatory offences such as administering a substance or trespass with intent, and sex with an adult relative. As can be seen, there is a broad range of offending *(Sexual Offences Act, 2003)*.

#### The United Kingdom Sex Offender Register

Upon conviction of any of the above sexual offences, sex offenders are required, within three days of conviction or release from prison, to provide their date

of birth, national insurance number, all names used, current home address and any other addresses regularly resided in to their local police.

From that date, sex offenders have to report each year to their local police regardless of whether their circumstances have changed. If, however, during the year, they change their name or address, they must inform the police within three days. Furthermore, they must inform the police if they intend to spend seven or more days away from home. Failure to comply with these notification requirements is a criminal offence which carries a prison term of up to five years (*Sex Offenders Act 1997*).

These notification requirements are applicable to sex offenders for a varying amount of time depending on the gravity of the offence, from indefinite to a minimum of seven years, with a half tariff for under 18 year olds (*Sex Offenders Act 2003*).

As a result of this legislation, the Sex Offenders Register contains the details of any individual convicted, cautioned or released from prison for a sexual offence against children or adults since 1997 (Batty, 2006). As of 4<sup>th</sup> April 2015, Norfolk Constabulary had responsibility for a cohort of 1098 RSOs who were currently subject to these notification requirements. With so many to manage, this thesis will address the question of upon whom should the Constabulary focus their resources?

#### How are RSOs currently managed by Norfolk Constabulary?

Every RSO is allocated an Offender Manager, a civilian member of staff or a Police Constable. There are fourteen Offender Managers, three civilians and eleven Police Constables, costing £670,000 in salary alone.

All RSOs are risk assessed using *Risk Matrix 2000* (Thornton et al., 2003). Risk Matrix 2000, discussed in the literature review, is a statistically derived risk assessment instrument which predicts the risk of re-conviction. RSOs are placed into four categories relating to this risk of re-conviction; Very High, High, Medium or Low.

All offenders receive management visits from pairs of Offender Managers, the frequency of which is guided by the risk category. Very High risk offenders are visited at least monthly, High risk, every three months, Medium risk every six months and Low risk at least annually. With the current cohort, this is a requirement of over two thousand visits per year.

#### Why is this topic important?

Many sex offences are the most damaging crimes of all. The effects of sexual offending can be psychologically devastating for years, sometimes a lifetime. The findings of the Crime Survey for England and Wales 2013/14 highlighted these aspects. Of those interviewed who had suffered serious sexual assault experiences by adults aged 16 to 59 since the age of 16, 62% of female victims had suffered from mental or emotional problems, 41% had stopped trusting people or had difficulty in other relationships and notably 8% had tried to kill themselves (Unweighted base = 147) (Office for National Statistics, 2015a: Appendix Table 4.23).

It is clear that not all crimes are equal hence prison sentences vary and sentencing guidelines are provided to assist judges in assessing the weight of punishment required. A rapist will rightly receive greater punishment than a shoplifter. This fact can also be used to assess harm. The Cambridge Crime Harm Index (CHI) (Sherman, Neyroud & Neyroud, 2014) which is discussed in depth throughout the thesis, works as an instrument to measure harm by applying the number of prison days for the starting point of a sentencing guideline to 'score' an offence. Sex offending scores highly. Rape has a harm value of 1825 and Sexual Assault scores 365, compared with Burglary, 20, and Actual Bodily Harm, 20.

The second reason this topic is important is the high level of resource required by police to manage these harmful offenders, all the more relevant in these times of reducing budgets.

All forces have a Public Protection Unit (PPU) and are supplied with guidance from what was the Association of Chief Police Officers. The Guidance on Protecting the Public: Managing Sexual and Violent Offenders 2010 (College of Policing, 2015) seeks early intervention to manage the risk and protect people from serious harm. It also recommends that forces comply with the then National Policing Improvement Agency (NPIA) ViSOR Standards Model. ViSOR is the national system for tracking and managing the relevant offenders and will be used as a key data source for this thesis.

The final reason this topic is important is the increase in demand. Both reported and recorded sexual offences are rising as demonstrated in the recent Office of National Statistics bulletin regarding Crime in England & Wales, year ending September 2014. 72,977 Sexual offences were recorded by the police, a 22% increase from the previous year (Office of National Statistics, 2015b). In Norfolk, the 2014 Performance and Analysis department's strategic profile on sexual offences stated that annual reported sexual offences were at their highest level compared to the previous four years (Ireland, p.11).

In addition, the rate of offenders reaching the end of their registration period is slower than the rate of new offenders joining the register. This means that the

number of RSOs to be managed is increasing year on year. In Norfolk, in 2004, there were only 472 RSOs, but by 4<sup>th</sup> April 2015, the figure stands at 1098.

This rise in demand for the PPU has already seen an increase in investment in spite of the Comprehensive Spending Review requirements, but there is little scope for further increase in resource.

#### How can this thesis help?

This thesis aims to provide a descriptive analysis of Norfolk RSOs using existing quantitative data. It will also count how many sexual offences have been committed by the cohort of Norfolk RSOs and present a more precise measure of 'harmfulness'. In so doing, it is hoped that the resources Norfolk Constabulary dedicates to managing RSOs can be 'targeted' in the most efficient and effective way possible to prevent future harm (Sherman, 2013).

The research questions the thesis seeks to address are:

- What are the demographic characteristics of Registered Sex Offenders in Norfolk? (Age, gender, ethnicity, nationality)
- Can application of a harm index contribute to a better method of identifying RSOs which police should 'target' to protect the public?
- 3. What are the offending patterns of the cohort of RSOs in Norfolk?

#### **Structure**

This thesis is constructed in sections. It begins with a literature review, comprising of a critical analysis of the available literature and research relating to this thesis in the topic area of sex offenders. Three major areas are covered; descriptive analyses, risk assessment tools, and crime severity indexes.

A methodology chapter follows, which sets out the process by which the data was captured and analysed to address the research questions. This will detail how the data was prepared and categorised, the inevitable limitations, and the analytical techniques utilised. External validity is assessed.

The results are presented with the findings grouped under each research question to assist in presenting a coherent picture.

There is then a discussion of the findings. The limitations and strengths of the study are explored before discussing the results in detail. The chapter concludes with an assessment of the important implications on policy.

A conclusion synthesises the previously discussed material. The major gaps in the literature which the thesis has sought to fill are highlighted, before the most significant findings and their potential impact on policy are addressed.

Despite the limitations within this thesis, which are explored, and the need for further study to develop the evidence base, which is strongly recommended, a call for immediate change to current practice is made, with recommendations to help the police better protect citizens from the potential harm caused by sex offenders.

#### **Literature Review**

Sexual offending has been the subject of vast amounts of research, with wide and varied topic areas. These can be categorised into the following broad groups; those which examine the notification regime, assessing its effectiveness or its ethics; those which research the treatments, psychological, medicinal or tactical from an agency point of view; those which look at the various techniques which have been utilised in attempting to predict re-offending and finally, a very small number of descriptive analyses.

Of these areas, only those relevant to this thesis will be probed further. This literature review focuses first on the small selection of descriptive analyses. The second section reviews the research on risk assessments as tools for predicting reoffending and managing RSOs. The third and final area of literature relates to Crime Severity Indexes and the Cambridge CHI.

#### **Descriptive Analyses**

Two aspects are immediately worthy of consideration when reviewing the descriptive analyses of sex offenders. Firstly, the descriptive analyses are based on data from outside the United Kingdom, either from Canada or the United States of America respectively (Lussier et al., 2010; Ackerman et al., 2011; Harris et al., 2012). Secondly, the quality of the data, for the US studies in particular, was poor.

Lussier et al.'s (2010) research provided a preliminary descriptive analysis of only fifty nine sex offenders in the province of British Columbia, Canada. With such a small sample size, the low statistical power means caution should be applied to any conclusions drawn.

The offenders were exclusively male, with an average age of 44.2 years old (SD=13.9; range=18-72). Most were Caucasian (71%), with Aboriginal (22%) the second most prevalent group. These results were in line with the profile of convicted sex offenders in Canadian federal penitentiaries (Motiuk & Vuong, 2005), which found 99.6% male with an average age of 44 (no standard deviation reported), 69.1% Caucasian and 22.9% Aboriginal.

Lussier et al. (2010) point out that this is an older average age than typically observed in samples of convicted sex offenders (Hanson & Thornton, 2000; Looman, 2006; Lussier et al., 2005; Nunes et al., 2002). Only about 15% of Lussier et al.'s (2010) sample was less than 25 years old, considered to be the age category at most risk of reoffending (Wollert, 2006). This does not prove Wollert to be incorrect. The age finding declared by Lussier et al. (2010) is the age of the offenders at the time of the study. It does not capture their age at the time of offending.

A high percentage of child molesters is noted, 68%, and criminal histories are assessed. 75% of the offenders had previous conviction for sexual offences, and 48% for violent crimes, figures higher than those typically reported in samples of convicted sex offenders (Lussier, 2005). A substantial proportion were multirecidivists. 62% had four or more sentencing dates. Interestingly, most of them were sexual multi-recidivists. Half of the sample had a minimum of two prior convictions for a sex crime (Lussier et al., 2010).

Importantly, the recidivism rate of sex offenders in a five year follow up was approximately 10% (Hanson, Morton, & Harris, 2003; Lussier, 2005). This increased in longer term follow-ups, up to 30% when assessing 25 years (Lussier et al., 2010).

In terms of risk, 20.7% of the offenders were low risk, 39.7% were medium risk, and 39.7% represented a high risk of recidivism as derived from the Static-99 tool discussed later in the literature review (Lussier at al., 2010).

In contrast, to Lussier et al.'s (2010) small scale sample, Ackerman et al.'s (2011) descriptive analysis provides a national profile of the registered sex offender (RSO) population drawn from an analysis of data on 445,127 RSOs obtained from the public registries of 49 states, Washington DC, Puerto Rico and Guam.

As with many of the offender variables, states varied considerably in the manner in which offences were captured on the public internet registry. The analysis faced such data issues that the authors acknowledge their attempt to develop a 'comprehensive descriptive summary of the RSO population has met with mixed results' (Ackerman et al., 2011: 157).

The most relevant findings relate to demographics. The total sample consisted of 435,016 males (97.7%) and 10,226 females (2.3%). 66% of the total sample was white, a similar finding to Lussier et al.'s 71% (2010), and the remainder included minorities who were primarily black. The mean age found was 44.8 (SD=13.32), almost identical to Lussier et al.'s finding (2010), from a wider range of 12–99 (n=449,534).

However, in both cases, there is a total lack of assessment of the harm of the offenders, nor a focus on whether offenders specialise in certain types of victim or specific types of offence. It is details such as these which are required to assist in tactical interventions.

The final descriptive analysis to be reviewed is that of Harris et al. (2011). Again, the authors highlight the variety of methods, criteria, and terminology used by different states across America to distinguish among RSOs, thus complicating the

development of a cohesive aggregate national picture. Unfortunately the vast majority of findings have limited relevance to this thesis.

It was found that approximately two thirds of the 739,853 RSOs reported by National Centre for Missing and Exploited Children (NCMEC) are actually 'active', meaning, at liberty, registrants living among the population, with the remainder either incarcerated, otherwise confined, deported, deceased, or living in another state and that as many as 8% of the nation's RSOs could be counted on multiple registries (Harris et al., 2011). This finding will not be applicable to England and Wales, since the Violent and Sex Offender Register (ViSOR) is a national system.

As can be seen, particularly for the descriptive analysis of Harris et al. (2011) but also with the others carried out to date, data quality has been a major issue. Furthermore, the research assesses sex offenders from countries other than England. Beyond that, there is no assessment of the differing harm of the sex offenders. There is no attempt to rank the offenders, or assess whether there is a 'Power Few', that is, the concept of clustering of high volumes of crime among a small proportion of the overall offenders (Sherman, 2007)

As such, an opportunity is provided for this thesis to address this knowledge gap through a thorough, detailed descriptive analysis of the structured, consistent data regarding Norfolk RSOs available from both ViSOR and PNC.

#### **Risk Assessment Tools**

A number of risk assessment tools have been designed to assess the risk of future sexual offending. Bonta (1996) identifies three generations of risk assessment tools for sex offenders. It is critical to point out that they focus on the likelihood of reoffending or reconviction and take little or no account for the differing harm of

different sexual offending. This is a serious weakness when, as is currently the case, the tools are applied as methods of prioritising resource.

#### **First Generation – Unstructured Professional Opinion**

Regarding the first generation, Hanson and Bussiere (1998) found that the predictive accuracy of clinical judgements was only just above chance level (r=.10). Clearly, with such harmful offenders, a better approach was needed. It was the meta-analysis of recidivism risk factors of Hanson and Bussiere (1998) which brought about the initial development of an actuarial risk assessment tool specifically for sex offending.

#### Second Generation – Actuarial risk scales

This section assesses six actuarial risk scales, all aimed at predicting the likelihood of re-offending. As previously stated, this omits the very important aspect of harm.

During the 1990s researchers agreed it was possible to predict recidivism for general crime with moderate accuracy (Andrews & Bonta, 1994; Gendreau, Little & Goggin, 1996). The factors identified as most strongly related were; a history of criminal behaviour, being young, having criminal associates and having characteristics of antisocial personality/psychopathy (Gendreau et al., 1996).

However, these tools were not successful in predicting sexual offence recidivism. Bonta and Hanson (1995) found when assessing one of these tools, the Statistical Information on Recidivism scale (Bonta, Harman, Hann and Cormier, 1996), that where it correlated r=.34 with non-sexual violent recidivism and r=.41 with general recidivism, it only achieved r=.09 with sexual recidivism.

Hanson and Bussiere (1996, 1998) set out to identify recidivism risk factors specific to sex offenders. Their meta-analysis of recidivism risk factors suggested that a different set of factors are at play when predicting sexual recidivism compared with those which predict general or non-sexual violent recidivism. Although age and prior offences are still relevant, the strongest predictors were characteristics that were related to sexual deviance. Phallometric assessments of sexual preference for children (r=.32), previous sexual offences (r=.19), age (r=.13), early onset of sexual offending (r=.12), any prior criminal offences (r=.13) and never having been married (r=.11) were identified. Hanson and Bussiere (1996, 1998) also found that the recidivism risk was lower for offenders who knew their victims or were related to them. When this work was refreshed (Hanson & Morton-Bourgon, 2005; Mann, Hanson, & Thornton, 2010), the findings were similar.

From this work, Hanson set out to create 'a brief, efficient actuarial tool that could be used to assess the risk for sexual offense recidivism' (1997: 4). This led to the development of the *Rapid Risk Assessment for Sex Offence Recidivism* (RRASOR). The tool was based on only four items easily obtainable from administrative records, facilitating use by practitioners; prior sexual arrests, age, whether male victims have ever been targeted; whether any victims were unrelated to the offender.

The RRASOR produces a score ranging from 0 to 5. The risk of recidivism increases directly with an increase in the RRASOR score. The corresponding recidivism rates over a ten year period range from 6.5% to 73.1% (Hanson, 1997). This tool attained r=.27 correlation with sexual recidivism and is therefore considered to achieve a moderate level of prediction. But Hanson himself acknowledged the limitation of the tool:

'The RRASOR was not intended to provide a comprehensive assessment of all the factors relevant to the prediction of sexual offender recidivism. Instead, the RRASOR should be used only to screen offenders into relative risk levels' (1997: 19).

The RRASOR was the first of a number of actuarial risk instruments which were developed to predict recidivism amongst sex offenders; the *Sex Offender Risk Appraisal Guide* (SORAG) (Quinsey, Harris, Rice & Cormier, 1998); the *Minnesota Sex Offender Screening Tool – Revised* (MSOST-R) (Epperson, Kaul & Hesselton, 1998) and Thornton's *Structured Anchored Clinical Judgement* (SACJ) (Grubin, 1998) all followed within a year. All of these sought to specify what factors should be considered when assessing the risk of recidivism, and how much weight each factor should be given.

The Sex Offender Risk Appraisal Guide (SORAG) is designed to assess any violent recidivism. It considers fourteen items including; not living with biological parents until age 16, elementary school maladjustment, history of alcohol problems, evidence of sustained intimate relationship, non-violent criminal activity, violent criminality, previous sexual contact convictions, sexual convictions against girls under fourteen only, failure on prior conditional release, age at index offence, meets DSM-III criteria for any personality disorder, meets DSM-III criteria for schizophrenia, evidence of deviant sexual preferences (phallometric testing) and psychopathy (PCL-R) score.

However, the SORAG tool is not simple to use. It requires not only more information than other tools, but also the ability to complete a Psychopathy Checklist – Revised (PCL-R) assessment. This requires specialist training, lengthy review of files, and an interview which can take several hours to complete. Clearly this is not the standard practice for a Constabulary Offender Manager.

Thornton's SACJ (Grubin, 1998) was different from the other tools in that it takes a stepwise approach as opposed to the simple summation of weighted factors. Five factors are considered relating to official convictions; current sexual offences, prior sexual offences, prior non-sexual violent offences and four or more prior sentencing occasions. This first step was based on the cross-tabulations and regression analysis of ten year sexual reconviction rates observed for male sex offenders released from prison in 1980 (Thornton & Travers, 1991).

These weighted factors place an offender into an initial risk category of Low, Medium or High, which can then be adjusted up or down during step two where eight further items are considered; stranger victims, male victims, never married, convictions for non-contact sex offences, substance abuse, placement in residential care as a child, deviant sexual arousal and psychopathy. The presence of two or more of these additional eight factors elevates the risk level.

Because four of these aggravating factors were complex to assess, a SACJ-Min was created which revised the aggravating factors down to just four; any male victim, any stranger victim, any non-contact sexual offence and never married. This SACJ-Min was used widely amongst the prison, police and probation services in England and Wales during the 1990s.

The next tool to be developed was the Static-99 tool from Hanson and Thornton's (2000) study which compared the predictive accuracy of RRASOR (Hanson 1997), Thornton's SACJ-Min (Grubin, 1998) and their newly designed Static-99 actuarial risk assessment tool. Static-99 includes ten items related to criminal history, victim characteristics and demographics. The total scores range from 0 to 12 and can be used to place offenders into one of four risk categories: low

risk (0, 1), moderate-low risk (2, 3), moderate-high risk (4, 5) and high risk (6 or over). Once again, although Static-99 was an apparent improvement, at r=.33, it still only achieved moderate predictive accuracy (Hanson & Thornton, 2000).

Acknowledging that Static-99 was 'harder and more time-consuming to score' (Thornton, 2007: 6), Thornton sought to make minor modifications of SACJ-Min to produce a scale as accurate, but more user-friendly. This development work created *Risk Matrix 2000* (Thornton et al., 2003), which was adopted nationally by the Prison, Police and Probation of England and Wales.

Risk Matrix 2000 is a statistically derived risk classification process for male offenders over the age of eighteen who have been convicted of a sexual offence. It uses factual information to divide offenders into categories with substantially differing rates of re-conviction (Thornton, 2007). Risk Matrix 2000 is unique among the other actuarial tools as it has separate indicators for sexual violence, non-sexual violence and for overall violence. However, for the purposes of this thesis, only Risk Matrix 2000/S, the sexual offender risk instrument, will be assessed since this is the instrument the Offender Managers of Norfolk Constabulary apply to their RSO population.

Risk Matrix 2000/S involves a two-step process. Step one assesses only three variables; the number of occasions sentenced for a sex offence, differentiated into four levels; the number of occasions sentenced for any criminal offence, differentiated into two levels; and age on release, differentiated into three levels. These three variables combine to provide four levels of risk (Thornton, 2007).

In step two, the same four aggravating factors as SACJ-Min are considered; a male sexual offence victim, a stranger sexual offence victim, presence of non-

contact sexual offences and a lack of a long-term intimate relationship. If two or three of these factors are present, the risk category is raised one level. If all four are present, the risk category is raised by two levels (Thornton, 2007).

Thornton et al. (2003) reported cross validation on two United Kingdom samples. Using the ROC AUC co-efficient as the statistic to express the predictive accuracy of Risk Matrix 2000/S, in the first two tests, the coefficient was 0.77 and 0.75 (Thornton, 2007). This index runs from 0.5 meaning no predictive value, to 1.0 which would be perfect predictive value. Thornton (2007) suggests coefficients of 0.7 or above would be thought of as indicating moderate predictive accuracy.

Further assessments of this accuracy have been ongoing. Hanson & Morton-Bourgon in particular carried out a number of meta-analyses throughout the years (2004, 2005, 2007, 2009). The 2007 meta-analysis included a table assessing the predictive accuracy of six of the majorly used instruments. Instead of the ROC AUC statistic, Hanson & Morton-Bourgon use a recognised alternative statistic called d. Table 1 below displays their finding that RM2000/S's predictive accuracy was comparable to the other actuarial instruments:

Prediction Instrument	D (95% CI)	N (k)
Static-99	.70 (.6476)	13,288 (42)
RRASOR	.59 (.5265)	8,673 (28)
Risk Matrix 2000/S	.82 (.6897)	1,814 (6)
Static-2002	.78 (.6591)	2,290 (5)
MnSOST-R	.72 (.5886)	1,684 (8)

Table 1 -	- Predictive	Accuracy o	f various	actuarial	instruments
TUDIC 1	1 I Culcuve	Accuracy o	i vanous	accautat	inistranicints

A further meta-analysis of sex offender risk scales (Hanson & Morton-Bourgon, 2009) identified ten validation studies of the Risk Matrix 2000/S and found moderate predictive accuracy for sexual recidivism (mean weighted d = .67, 95% CI of .56 to .77, n = 2,755).

So, Risk Matrix 2000/S appears to be a simple to use tool with moderate accuracy. As such it became the mainstay of resource decisions for police forces across the country.

However, in Table 2 below, Thornton (2007:15) provides his estimation of the true rate of sexual recidivism for each of the groups following release.

Table 2 – Projected True Rates of Sexual Recidivism by Risk Matrix 2000 S-scale Risk Categories

RM2000/S	5 Year	15 Year
Low	8%	11%
Medium	25%	29%
High	49%	55%
Very High	85%	91%

As can be seen, of those categorised as Very High, virtually all seem to reoffend within fifteen years and many of them within five years of release. But what is also very significant is the fact that even within the Low risk offenders group, one in ten will re-offend.

After the rollout of Risk Matrix 2000, there were, in the following years, a number of research papers relating to its validation (Craig et al., 2006) and its long term predictive validity (Kingston et al., 2008; Barnett et al., 2010). Craig et al., (2006) found that the levels and categories of risk determined by the various instruments appeared inconsistent. Their results seem to suggest one generic tool for all sexual offenders was not appropriate and that instruments should be designed to assess specific subcategories. Craig et al. (2006) further challenge the viability of the tools because of their focus on the static variables as opposed to dynamic

factors. Without the ability to monitor change, how can the assessment remain accurate?

The research of Kingston et al., (2008) still demonstrated usefulness for Risk Matrix 2000. Their results indicated that Risk Matrix 2000 demonstrated convergent validity on account of it correlating with other risk assessment instruments. Risk Matrix 2000 also demonstrated its ability to predict recidivism above chance levels, with medium to large effect sizes. That said, both SORAG and Static-99 were found to be superior.

Despite such challenges, a refreshed meta-analysis by Helmus, Babchishin & Hanson (2013) again assessed the predictive accuracy of Risk Matrix 2000, finding the 2000/S scale provided moderate predictive accuracy (d=.74). They expressed their belief that these results continue to support the use of this matrix.

It is worthy of note that on several occasions, Risk Matrix 2000/S has been found to have moderate to good predictive accuracy (Thornton et al., 2003; Barnett, Wakeling & Howard, 2010; Grubin 2008; Hanson & Morton-Bourgon, 2009; Tully et al., 2013), but what is clear, is that Risk Matrix 2000/S, as with all the risk assessment tools, has limitations. One of the key limitations for all of these static tools is that they are not good at monitoring change. Tully and Browne's (2014) appraisal of Risk Matrix 2000 highlights the need for further research into the validity of this static tool with sex offender subgroups and the need in particular for further research to develop dynamic factors and thus improve practical utility.

#### **Third Generation - Dynamic Risk Assessments**

The third generation involves assessment of dynamic risk factors or 'criminogenic needs'. These are factors which are capable of change, and should the

factors change, then the risk of recidivism is, in turn, increased or decreased (Andrews, Bonta & Hoge, 1990).

This need for an ability to assess dynamic factors has brought about two significant changes. Offender Managers within Norfolk Constabulary have been able to apply unstructured professional judgement i.e. lacking a structured list of risk factors to be assessed by the evaluator, to escalate the risk if they deem it appropriate. This risk assessment is based on individual opinion following case analysis, case conference or judgement following contact or receipt of intelligence regarding the offender.

With the general acceptance that such unstructured judgement is the weakest predictor available, efforts were made to address this problem. Following an attempt by Hanson et al. (2007) with a Stable and Acute dynamic risk assessment tool, the College of Policing developed their own tool, Active Risk Matrix (ARMS). ARMS is a structured assessment process to assess dynamic risk factors known to be associated with sexual re-offending, and protective factors known to be associated with reduced offending (McNaughton and Webster, 2014).

The ARMS assessment involves five stages: gathering and evaluating information about the offender over the last three months; scoring the presence of risk and protective factors; identifying priorities for action; designing action; and reviewing any changes following action.

It was piloted on a small scale, in 2012, with twenty officers from three Probation Trusts and two Police Forces using the tool as part of their routine supervision of 37 sexual offenders. Following an evaluation by McNaughton and Webster (2014), the College of Policing are rolling the tool out across all Forces in England and Wales.

Concerns regarding the evaluation, apart from its small scale, relate in particular to the inter-rater reliability, which was poor. Of the identical test case, those involved in the pilot produced differing results. It is too early to assess the effectiveness of ARMS. However, it is noteworthy that of the thirteen variables in the framework, none takes into account the seriousness of the offending.

#### **Summary**

As can be seen, great efforts and extensive research has been applied to pursue a mechanism to predict risk of reconviction. Despite this, the average ability of all risk assessments to predict sexual recidivism remains moderate (d=0.58, 95% confidence interval \_ .56 -.60, k \_ 253). Furthermore, the results of these different risk tools often diverge. Barbaree, Langton, and Peacock (2006) found that less than 5% of their sample was consistently identified as high risk or as low risk across five actuarial risk tools for sexual offenders (VRAG, SORAG, RRASOR, Static–99, MnSOST–R). Issues abound.

That said, for all outcome measures, unstructured professional judgment was significantly less accurate than were the empirically derived actuarial measures (Hanson, R. K. & Morton-Bourgon, K. E. 2009: 9). Recent developments to improve the situation are focusing on the ability to take dynamic factors into account.

#### Where's the harm?

Crucially, the seriousness of the offending is still not prominent in these developments. It is this concern which the following research will attempt to address. Grubin (2008) highlighted that the Risk Matrix 2000, as with the other tools, was designed to assess the likelihood of reconviction, not the seriousness of any re-offence. Indeed, 'little association' (Grubin, 2006: 430) was found between the risk of

re-offending category and the severity of re-offending. By combining the Low and Medium groups and the High with the Very High, Grubin found that it was the lower risk category that had the higher proportion of more severe sentences on reconviction ( $\chi^2$ =5.85, *df*=1, *p*=.05) (2006: 429). Furthermore, three of four life sentences were meted out to offenders in the Medium risk group.

This use of sentences to indicate severity is a technique adopted by this thesis when attempting to solve the fundamental gap of a lack of a tool to measure the differing harm of sex offenders.

#### What's the problem?

Given the inability of any of the tools even to predict likelihood of re-offending with more than moderate accuracy, it is critical constabularies know which of their offenders are the most harmful.

Because the tools are predicting the risk of re-conviction, there are two inherent weaknesses, the mechanism is skewed to likelihood of the risk occurring, with little refinement taking into account the varying impact, i.e. it is possible for offenders to be graded as high because they are likely to be re-convicted of a lesser crime. Which is more important for the police to manage? An offender who is very likely to re-offend and be convicted of exposure, or an offender who is likely to be reconvicted of sexual assault with digital penetration?

This thesis will attempt to address Grubin's (2008) concerns regarding the seriousness of re-offending. This will be through the application of a Crime Harm metric, which will be discussed in the next section of the literature review. This will discover whether, by weighting the offending, different patterns occur that will enable better targeting of scarce resource to provide maximum protection to the public.

#### **Crime Severity Indexes**

The third and final area of literature to be reviewed relates to measurements of crime severity. Although the Cambridge version of the Crime Harm Index is a relatively new concept, there have been years of research into the differing impacts of different crimes. The Cambridge CHI builds on these previous pieces of research.

The pioneering work of Sellin and Wolfgang (1964) created the Sellin-Wolfgang seriousness scale which was used to typify the severity of crime in a quantitative manner. However, this scale measured only harm actually inflicted in a criminal event. The scale was created by drawing samples of opinion from students, police and judges in Philadelphia. Each group was asked to rate the seriousness of criminal behaviours on a scale of 1 being the least serious, to 11 being the most serious. Owing to their claimed similarity of results, they constructed a method to use these ratings and apply them to offences to create a score.

This study was subject to much further research and received criticism from Rose (1966) and Pease et al. (1974) because of the methodological problems. A number of problems were highlighted by Rose (1966), but one criticism which was well founded related to the reliability of the measurements in that the choice of raters might not be adequate to support Sellin and Wolfgang's position that their responses were representative of the general community. Pease et al. (1974) criticised the additivity assumptions as not empirically tested.

Despite such criticism, the key fact was that the criminological debate regarding how to weight different crimes had begun and criminologists ever since have sought to design a mechanism for differentiating fairly between crimes. Jacoby and Cullen (1999) correlated sentence length with offence seriousness as perceived

by citizens (r=.956). Such a finding provided a stimulus for a potential metric for measuring harm.

A major development occurred in 2009, when a Crime Severity Index was introduced in Canada (Statistics Canada, 2009). This used the underlying premise of sentencing that more serious crimes will receive more serious punishments from the courts. Each offence is assigned a seriousness 'weight', derived from actual sentences multiplied by the incarceration rate for an offence.

This has difficulties as the weightings are subject to change every year, and as such the mechanism requires a refresh every five years (Statistics Canada, 2009). In addition, only incarcerations are taken into account in defining the weighting, when there are many other punishments applied, e.g. conditional sentences. Time served on remand may lead to inaccuracies, and the impact of repeat offending which is a documented factor in affecting sentence length is hard to quantify (Statistics Canada, 2009).

Sherman (2007, 2013) further developed this methodology, but rather than using the average of actual sentences, suggests the application of sentencing guidelines. This builds on the basis of 'good democratic grounds' (Sherman, 2013: 423) since it reflects the will of the society because the sentencing guideline process is subjected to opinion polls, debates and scrutiny from democratically elected officials and a free press. Every sentencing guideline produced is subject to a twelve week public consultation period in addition to the extensive legal research undertaken to produce the draft. Ultimately, each crime type is indexed by the number of days in prison defined as the starting point from the sentencing guidelines for a first time offender.

Although, the Cambridge CHI appears to be the best indexing mechanism to date, it has its weaknesses. The use of the starting point from the sentencing guidelines could cause inaccuracies, particularly when applied to sexual offending. For example, the starting point for a rape is 1825 days. However, if the offence is deemed by a judge to be category one, which does not yet take into account aggravating or mitigating factors, merely the severity of the offence, the score would be 4380. For assault by penetration, this difference in range increases from 730 under the Cambridge CHI, to 4380 if the judge deems the offence to be category one. This aspect will be further explored throughout the thesis to attempt to improve and refine the Cambridge CHI and thus assist the identification and 'targeting' (Sherman, 2013) of the most harmful offenders

#### What's the alternative?

There are other methods for estimating the impact of various types of crime. Many have focused on the cost of various components of crime; victim medical fees, lost wages, police, prison and probation costs and even intangible items such as pain, suffering and lost quality of life to victims. Cohen (1998) developed a methodology for estimating the cost of individual crimes based partly on jury awards for pain, suffering and reduced quality of life. This was further developed in subsequent studies (Cohen, Miller and Rossman, 1994; Miller, Cohen and Wiersema, 1996). These methods at least attempted to capture the intangible costs of crime which had previously been ignored and as such could be seen to be estimating harm.

However, as Nagin (2001a, 2001b) noted, these estimates of Cohen (1988) and Miller, Cohen and Wiersema (1996) are based on the cost to an individual victim

and therefore do not capture the external social costs associated with crime. For example, the adverse impact on the quality of life within neighbourhoods, communities and the wider society. Cohen et al., (2006) further developed the methodology and refined a survey where respondents were asked if they would be willing to vote for a proposal requiring each household in their community to pay a certain amount to be used to prevent one in ten crimes in their community and thus demonstrated the applicability of the contingent valuation method within criminal justice.

Significantly for the purposes of this thesis, what the willingness to pay methodologies lack when considering whether to utilise them with regards to the Norfolk RSOs, is the refinement of applying different values to the myriad of different sexual offences. As such, this thesis will critically evaluate the Crime Harm Index approach.

#### **Literature Review Summary**

As can be seen, despite years of research undertaken worldwide, significant knowledge gaps remain. Even basic demographic information such as age, gender and ethnicity of UK based offenders is lacking. This study will profile these characteristics of sex offenders in Norfolk, as well as examine offender histories, notably versatility and prolificacy.

Beyond this, the lack of assessment of the differing harm of sex offenders is the greatest gap in knowledge which could heavily influence police tactics and how the police 'target' sex offenders with their limited resources. Can a metric be designed which differentiates an offender who commits rape from one who commits exposure? How does the Cambridge CHI meet the task of measuring sexual harm?
Furthermore, does the theory of the 'Power Few' apply within sex offending? Are there offender patterns, or specialisms? Are offences against one category of victim more harmful than another? To date, the research has not addressed these issues, focusing more on the likelihood of the re-offending and the accuracy of the tools which attempt to predict this. These are the gaps in knowledge which this study will address.

# Methods

This chapter describes the methods used to obtain, process and analyse the data for this thesis. The first section details the data sources and how the data was extracted from ViSOR, the Sentencing Guidelines (2013) and the Police National Computer (PNC) to build the data set. For each data source, subsections provide assessments of the data's limitations.

Next follows a short section on how the data was processed prior to any analytical procedures being carried out. This details the extra calculations carried out using a Microsoft Excel spreadsheet to expand the dataset.

The chapter concludes with a comment on the external validity of the research and a call for future researchers to replicate the process to expand the evidence base still further.

# **Data Sources**

To compile this thesis, there were three major data sources and four major processes. Importantly, all the data sources are readily available to the other 42 police forces in England and Wales. As such, replication of this study is greatly facilitated.

# **ViSOR – Capturing the Demographics**

The first system to be manually trawled for data on a case by case basis was the ViSOR database. To obtain access to this system, a data processing agreement was signed with the Chief Information Officer of the Constabulary (Appendix A).

The ViSOR system has limited data reporting capability. As such, each individual offender's record had to be entered into, to capture the following fields;

date of birth, gender, ethnicity, nationality, date of initial registration, Risk Matrix 2000 risk category, dynamic risk category and, where available, ARMS risk category.

Having captured the data for 1105 offenders, the names were deleted and replaced with a unique identifier. Personal details never left the Constabulary's computer systems.

# Limitations

As with all such systems, the data captured is reliant on the accuracy of the data input by various Offender Managers. However, because the system has structured data with specific fields, i.e. not free text, the information was readily obtainable.

Also, with so many RSOs being registered on the same day, it was apparent that it was possible for the risk assessment visit to be carried out and then a time lag before system administrators updated the system. This means the date of initial registration should be treated as an estimate, perhaps being inaccurate by as far as one month.

Unfortunately, the attempt to capture marital status and the number of children was not achievable.

# **Calculating the Crime Harm from Sentencing Guidelines – The Cambridge Approach**

To use the Cambridge CHI, the Sexual Offences Definitive Guideline from the Sentencing Council (2013) is vital. This provides the sentencing guidance for all the relevant Sexual Offences acts. This included the 2003 Sexual Offences Act in specific detail but also the approach for historic offences covered by the Sexual Offences Act of 1956, the Indecency with Children Act 1960, the Protection of Children Act 1978, the Criminal Justice Act 1988 and the Criminal Justice Act 2003 which covers offences relating to extreme pornography.

The process involved identification of the starting point for a sentence relating to an offence, disregarding mitigating or aggravating factors. Where more than one starting point existed, the lowest was used.

For community orders and fines a calculation was used to convert to a number of prison harm days. Sexual Offence Prevention Orders were treated with the same score as a High Community Order. Details of the scores can be seen in Appendix B.

# **Process Decisions**

Throughout the trawl a number of decisions had to be made relating to how to apply or create the harm scores, for example, how to score life sentences, or offences prosecuted under Common Law. Appendix C details the key decisions made.

### Limitations

There were a number of issues with calculating the harm scores to apply the Cambridge CHI in addition to those highlighted in Appendix C.

The changes in societal attitude to certain behaviours, for example, buggery, present an issue. When this was illegal, it was treated with the same sentencing as rape. In today's society, buggery is only an offence if a victim has not consented or is under the age of consent. Extracting these from the analyses would prove too time consuming. As such, this could distort the historic offending harm for older offenders.

Another issue relates to offences such as the Failure to Comply with the Notification Requirements. It became clear from the wide variance in sentences meted out that this offence hides the true behaviours for which the offender is being judged.

Another major issue with the application of the Cambridge CHI related to the scores attributed to image offences and the multiple starting points to select from. In a similar fashion to the Failure to Notify offence, there was a very broad range of sentences handed down for the same image offences. The starting point for Making Photos under the Cambridge CHI seemed to outweigh the actual sentencing. This is discussed in more detail in the results and discussion section.

The final major issue with the Cambridge CHI relates to the use of starting points. It is apparent that only using starting points could underestimate the harm inflicted by an offence. Using the Cambridge CHI, rape scores 1825, but, in reality, sentences of 9125 days have been handed down. This difference could lead to a significant underestimation of the harm caused by the RSOs, a matter assessed in detail in the findings.

# Calculating the Crime Harm from actual sentences received - The Jackman Approach

The limitations detailed above regarding the application of the Cambridge CHI to sexual offending led the researcher to design a new method of attributing harm, the Jackman Crime Harm Index. It is no more complicated than identifying the actual sentence handed down per offence and converting the score to prison days, the same unit as the Cambridge CHI.

The application of both indexes was implemented to see if either has greater merit in identifying harm amongst the cohort. The perceived strength of the Jackman CHI is that it eliminates the issue with the Cambridge CHI where there is a vast difference in score between the starting point and the maximum sentence, whilst taking into account the true nature of any offending categorised as Failing to Notify or Breaching of Orders.

### Limitations

There are occasions where 'No Separate Penalty' is stated on the PNC record as the sentencing. This was deemed to score zero using the Jackman matrix, whereas this would score the appropriate starting point under the Cambridge CHI. In this case, it could be argued that the latter is a better estimation of the harm. On the other hand, the judges, in their wisdom, have chosen not to apply any penalty, so it could justifiably be argued that the judges' overall assessments of prison days meted out is still an improved metric compared with using starting points.

There are other issues with using sentencing data which relate more to the data extracted from PNC. These are explored more fully in the following section.

# PNC

The data for the offending history and sentences received was drawn from the official records of the offenders held on the PNC. Having completed the manual trawl of ViSOR, the PNC Bureau of Norfolk was requested to provide summary PNC records for the cohort of 1105. This was a significant piece of work and required provision of overtime.

Each of the 1105 individual PDFs of the summary PNC records was then assessed by the researcher for the following information; total number of convictions, whether the convictions solely related to sex offences, the total number of sex offences committed (including cautions), the date of each individual offence, the specific section of the specific act for each individual offence and the duration of the actual sentence relating to each offence. Seven RSOs were excluded at this stage as they did not have any convictions on their record, their convictions being so recent. This provided a final cohort of 1098 RSOs.

### Limitations

As previously discussed, one of the major issues with all such research is the fact that it is based on the official records of convictions. This will significantly understate the actual offending. By not capturing every offence, the amount of harm these RSOs have actually inflicted will be understated.

This is exacerbated by offences taken into consideration (TICs). These are, on occasion, stated on the PNC record, in one case over one hundred TICs. No details are provided either about the nature of the offence, nor any sentencing detail provided. This leads to the potential underestimation of harm inflicted by an offender, albeit this applies to either CHI applied.

Another issue relates to plea bargains. Practical experience tells the researcher that the convictions may well not relate accurately to the offences actually committed. Again, this will lead to an underestimation of the harm in some cases.

Another issue which immediately surfaced was the accuracy of the dates provided on PNC records. In some cases, only the date of the conviction was provided. In others, a specific date of the offence was provided, and in others a large date range, sometimes expanding over a period of years, was given. Owing to the imprecision around the actual dates of the offending, it was only possible to provide a best guess of the initial date of offending and the date of the latest offence.

42

However, even in this, confidence cannot be total regarding the accuracy. It is clear that a prosecution in 2010 under the Sexual Offences Act of 1956 is historic and did not occur in 2010. Furthermore, it is clear that an RSO prosecuted for indecent assault but over a period of three years inflicted the assault on more than one occasion. However, they will only score one offence under whichever Crime Harm Index is applied.

So, as with all research, the ability to be absolutely precise eludes the researcher, but the implementation of the data trawl produced a large amount of valuable data never before analysed within Norfolk, or, indeed, elsewhere, and the effort in the number of hours required to carry out the work still produced valuable findings.

# **Processing the Data**

Formulas in the data capture spreadsheet calculated; the offenders' ages at the time of the cohort snapshot (4<sup>th</sup> April 2015), the amount of prison days per offence, the proportion of offending which was sexual in nature, the date of the first and last offence, a prolificacy rate, the cumulative crime harm prison days acquired either using the Cambridge CHI or the Jackman CHI and the average amount of harm per offence committed by each RSO.

To assess whether RSOs specialised in the types of sexual offending they committed, the offences were grouped. The categories created were; adult victim offences, child victim offences, image offences and vulnerable adult offences. The offences contained within these groups are available in Appendix D. Statistical tests were used on the different groups to assess if there were any real differences between them in terms of level of harm inflicted.

43

### **Analytical Procedures**

The data was treated as a period sample, not a population, and so inferential statistics were used. As such, inferences may be drawn about the findings attributable to this cohort, to offenders on the sex offender register in future years, and possibly in other areas of the United Kingdom as well.

Appendix E provides details of the analytical procedures implemented, structured to follow the order of the research questions.

# **External Validity**

The findings detailed in the next chapter are based on the assessment of a specific time sample of RSOs within Norfolk. Although this is a specific focus, it is hoped that all forces in England & Wales can derive some relevance from the findings since all forces are following the same College of Policing Guidance in current policies for managing their RSOs.

What is more certain is the ability to replicate this study, since all the data sources used are national. The same methods, drawbacks accepted, could be used across the entire RSO population of England and Wales. The findings in terms of demographics are highly likely to vary from those found in Norfolk. However, the application of such a method to profile the harm caused by RSOs can only be of benefit for future 'targeting' of limited policing resource.

# Results

This chapter begins with a description of the data used for the purposes of the analysis. Each research question is then addressed detailing the results of the analysis and the relevant statistical tests that were implemented. As such, there are three subsections; the descriptive analysis, the application of a harm measure to the sex offender cohort, and the analysis of the offending patterns of the cohort. The chapter concludes with a summary of the findings.

# **Description of the Data**

The cohort of Registered Sex Offenders in Norfolk is a dynamic entity with offenders being added on a regular basis. As such, the cohort was 'frozen' on the 4<sup>th</sup> April 2015, providing 1105 offenders. Seven were excluded because their PNC records had not been updated with the required sentencing data.

The final cohort was therefore 1098 Registered Sex Offenders in Norfolk and these offenders were responsible for 7053 convictions of 57 different sex offences. Table 3 and Figure 1 below detail the 17 offence types with more than 100 convictions and their percentage of the overall total to reveal the most common convictions:

<b>Fable 3 – Sexual Offence</b>	s with more than 100	convictions within the	cohort of Norfolk RSOs
---------------------------------	----------------------	------------------------	------------------------

Offence Type	Count	Percentage of Total
Making Photos 1978 s.1	1690	24.0
Indecent assault on female 1956 s.14	1072	15.2
Indecent assault on male 1956 s.15	573	8.1
Possessing Photograph 1988 s.160	424	6.0
Sexual activity with a child 2003 s.9	402	5.7
Gross indecency with child (Girl) Under 16 - 1960 s.1	304	4.3
Sexual assault of a child under 13 2003 s.7	236	3.3
Rape (1956)	220	3.1
Sexual Assault 2003 s.3	205	2.9
Rape 2003 s.1	203	2.9
Exposure 2003 s.66	187	2.7
Distributing indecent photo 1978 s.1	166	2.4
Fail Notification 2003 s.91	131	1.9
Breach of SOPO 2003 s.113	129	1.8
Sexual Activity with a child family member 2003 s.25	114	1.6
Buggery 1956 s.12	107	1.5
Extreme Pornography CJA 2008 s.63	103	1.5
Total	6266	88.8



Figure 1 – Sexual Offences with more than 100 convictions within the cohort of Norfolk RSOs

The other relevant data preparation carried out was identifying which of these 1098 RSOs were currently in prison. This was identified because, although it does not affect the static risk assessment results, it is clearly very relevant to the police in terms of offender management. Of the 1098, 193 were in prison at the time the cohort was frozen, meaning 905 RSOs were 'at liberty'.

# **Research Question 1: What are the Demographic Characteristics of RSOs in Norfolk?**

Four variables were analysed to provide a demographic picture; Age, Gender, Ethnicity and Nationality.

# Age

# Entire Cohort

The youngest in the cohort at the time of the snapshot was 13, whilst the oldest was 91. The mean age is 48.03 (SD=16.047). Age at initial registration was also available. The youngest at this time was 12, the oldest was 87 with a mean of 42.48 (SD=15.301). Figure 2 below displays the age in bandings of the RSOs, both at the time of the snapshot and at the time of initial registration.



Figure 2 – Age of Norfolk RSOs at snapshot and at initial registration

### <u>At Liberty</u>

Of the 905 RSOs at liberty, the youngest at the time of the snapshot was 13, the oldest 91 with a mean of 48.39 (SD=16.228). Looking at the age of registration for RSOs at liberty, the youngest was 12, the oldest 87 with a mean of 42.48 (SD=15.301).

# <u>In Prison</u>

Of the 193 RSOs in prison, the youngest was 18, the oldest 81 with a mean 46.35 (SD=15.097). In terms of their age at registration, the youngest was 14, the oldest 77 with a mean of 42.12 (SD=15.256).

A t-test for independent samples was conducted to test whether the age difference at the time of the snapshot was significant between RSOs at liberty and those in prison. There was no significant difference, t(1096)=1.607, p=.108. Similarly, a t-test for independent samples was conducted to test whether the age differences at the time of registration between RSOs at liberty and those in prison. Again there was no significant difference, t(1096)=.358, p=.720.

### Gender

The Genders of the RSOs are demonstrated in Table 4 below:

Table 4 – Genders of Norfolk RSOs

Gender	Number of RSOs At Liberty	Number of RSOs In Prison	Total
Male	894	193	1087
Female	11	0	11

The Cohort was 98.8% male (N=1098). Only 11, (1.2%) were female. None of the female RSOs were in prison at the time of the snapshot.

# Nationality

Table 5 below demonstrates the number of each nationality within the cohort of RSOs (N=1098).

Nationality	Frequency	Valid Percent
British	1042	94.9
Lithuanian	12	1.1
Polish	7	0.6
Portuguese	5	0.5
German	3	0.3
Indian	3	0.3
Iraqi	3	0.3
Bangladeshi	2	0.2
Jamaican	2	0.2
Zimbabwean	2	0.2
Algerian	1	0.1
American	1	0.1
Colombian	1	0.1
Congolese	1	0.1
Eritrean	1	0.1
Guinea-Bissaui	1	0.1
Irish	1	0.1
Kenyan	1	0.1
Latvian	1	0.1
Philippino	1	0.1
Russian	1	0.1
Sierra Leonean	1	0.1
Slovakian	1	0.1
Somalian	1	0.1
Sri Lankan	1	0.1
Trinidadian	1	0.1
Turkish	1	0.1

Table 5 – Nationalities of Norfolk RSOs

27 different nationalities are found within the group. The overwhelming majority of RSOs are British (1042, 94.9% of the total), with Lithuania at 12 (1.1%) the only other nationality reaching double figures. Of the cohort of 1098 RSOs, only 56 (5.1%) are foreign nationals. This is reflective of Norfolk's estimated 7.6% minority ethnic population (Norfolk Insight, 2011).

Of the 193 RSOs in prison, 172 (92.2%) are British and 15 (7.8%) are foreign nationals.

# Ethnicity

Self-Defined Ethnicity Codes are recorded on ViSOR at the time of registration. Only one field was missing meaning N=1097. The results are in Table 6 below:

Self-Defined Ethnicity Code	Frequency	Valid Percent
W1 – British	1033	94.2
W9 – Irish	36	3.3
B1 – Caribbean	8	.7
B2 – African	7	.6
A9 – Any other Asian background	4	.4
A1 – Indian	3	.3
A3 – Bangladeshi	2	.2
B9 – Any other Black background	1	.1
M1 – White and Black Caribbean	1	.1
M9 – Any other mixed background	1	.1
O9 – Any other ethnic group	1	.1
Total	1097	100
Missing	1	
Total	1098	

### Table 6 – Self-Defined Ethnicity Codes of Norfolk RSOs

N=1094, 4=Missing

The ethnicity of the cohort of RSOs is in the vast majority White British, 1033 (94.2%). Only the number of Irish offenders, 36 (3.3%), reaches double figures.

# Research Question 2: Can application of a harm index contribute to a better method of identifying RSOs which police should 'target' to protect the public?

# Risk of Reconviction categories as derived from various available tools

Three tools are used by Offender Managers to grade the risk of re-conviction of the RSOs, Risk Matrix 2000, Dynamic (unstructured professional judgement) and the recently rolled out ARMS. The tables below reveal the categories the RSOs, both those at liberty and those in prison, fall into when these tools are applied.

### Risk Matrix 2000 Risk Assessments

Risk Matrix 2	000 Category	At Liberty	In Prison	Total	
Low:	Count	379	54	433	
	% within Category	87.5%	12.5%	100%	
Medium:	Count	322	81	403	
	% within Category	79.9%	20.1%	100%	
High:	Count	157	38	195	
	% within Category	80.5%	19.5%	100%	
Very High:	Count	46	17	63	
	% within Category	73.0%	27.0%	100%	
Total:	Count	904	190	1094	
	% within Category	82.6%	17.4%	100%	

### Table 7 – Number of RSOs at Liberty or in Prison by Risk Matrix 2000 risk of reconviction category

N=1094, 4=Missing

A chi-square test was conducted to investigate if there was a systematic relationship between risk category and liberty versus prison status in the sample,  $\chi^2$  (3, N=1094)=13.999, p=.003; Cramer's V=.113, p=.003, meaning that the number of RSOs in prison does differ by Risk Matrix 2000 category, though the effect size is not

high (Cramer's V=.113). 29% of those in prison compared with 22% of those at liberty were graded as High or Very High risk of reconviction.



Figure 3 below depicts the above findings:



This reveals that there is still a good number, 207, of High and Very High Risk RSOs at liberty.

Probing further into the offences of the 63 Very High Risk offenders, six had committed only exposure offences, one was a voyeur with an image related offence, and two had only committed non-contact image offences. Of the offences which are inflicted by the cohort, these are not the most harmful.

### Dynamic Risk Assessments

Dynamic Ris	< Category	At Liberty	In Prison	Total
Low:	Count	366	51	417
	% within Category	82.5%	17.5%	100%
Medium:	Count	330	78	408
	% within Category	80.9%	19.1%	100%
High:	Count	190	43	233
	% within Category	81.5%	18.5%	100%
Very High:	Count	17	19	36
	% within Category	47.2%	52.8%	100%
Total:	Count	903	191	1094
	% within Category	82.5%	17.5%	100%

Table 8 - Number of RSOs at Liberty or in Prison by Dynamic Risk Assessment risk of reconviction category

Table 9 reveals what changes in risk rating occurred when a dynamic risk assessment was applied to RSOs. This dynamic risk assessment is unstructured professional judgement.

Table 9 – Change in risk level between Risk Matrix 2000 category and Dynamic Risk Assessment

Change in Ri	sk Level						
			Dynamic	Risk Assess	sment		
	Risk Level	VH	Н	Μ	L	u/k	Total
tial	VH	26	24	12	1		63
inli	Н	5	154	28	8		195
000 : rat	М	1	37	329	36		403
л 20 Risk	L	4	17	39	372	1	433
AN -	u/k		1			3	4
	Total	36	233	408	417	4	1098
	Total where risk level has been reduced						
	Total where r	Total where risk level has been increased					

As can be seen, 10% (109) of the 1098 RSOs were reduced in Risk Rating, while 10% were increased. Only 2% (21) dropped more than one risk category. Equally 2% (22) increased by more than one risk category. The vast majority (886) remained unchanged.

A chi-square test was conducted to investigate if there was a systematic relationship between the dynamic risk category and liberty versus prison status in the sample,  $\chi^2$  (3, N=1094)=40.013, p=<.001; Cramer's V =.191, p=<.001, meaning that the number of RSOs in prison does differ by dynamic risk matrix category.



Figure 4 below depicts the above findings:



Because it is not possible to identify when the dynamic risk assessment occurs, and by their very nature of being dynamic, they can change repeatedly. For all further analysis, the static risk assessment of Risk Matrix 2000 was used.

### ARMS Risk Assessments

Only 102 of the cohort had been assessed using this new assessment tool at the time of the snapshot. With such low numbers, statistical tests were not significant.

Table 10 below reveals the results.

ARMS Risk Category		At Liberty	In Prison	Total
Low:	Count	28	2	30
	% within Category	93.3%	6.7%	100%
Medium:	Count	61	3	64
	% within Category	95.3%	4.7%	100%
High:	Count	7	1	8
	% within Category	87.5%	12.5%	100%
Total:	Count	96	6	102
	% within Category	94.1%	5.9%	100%

Table 10 - Number of RSOs at Liberty or in Prison by ARMS risk of reconviction category

N=102

As can be seen not one of the 102 RSOs assessed by ARMS resulted in being categorised as Very High risk of reconviction. 27.4% (28) were categorised as Low and 59.8% (61) as Medium. Only 6.9% (7) were categorised as high. The sample is too small to compare statistically with the overall cohort, but Table 11 below nevertheless makes interesting viewing:

Table 11 – Percentage of RSOs who	fall into Risk Categories as defined b	y Risk Matrix 2000 and ARMS
-----------------------------------	--	-----------------------------

Risk Rating	Risk Matrix 2000 (N=1094)	ARMS (N=102)
Very High	5.8%	0%
High	17.8%	6.9%
Medium	36.8%	59.8%
Low	39.6%	27.4%

Table 12 below cross tabulates the Risk Matrix 2000 grading with the result of the ARMS assessment either upgrading, not changing or downgrading the risk rating.

	Table 12 -	- Number of RSOs	whose risk category	was Upgraded,	<b>Downgraded or</b>	<b>Unchanged following</b>	<b>ARMS</b> assessment
--	------------	------------------	---------------------	---------------	----------------------	----------------------------	------------------------

RM2000 Rating	Upgrade	No Change	Downgrade	Total
Very High Count	0	0	33	33
% within category	0.0%	0.0%	100%	100%
High Count	0	5	36	41
% within category	0.0%	12.2%	87.8%	100%
Medium Count	1	12	2	15
% within category	6.7%	80.0%	13.3%	100%
Low Count	4	9	0	13
% within category	30.8%	69.2%	0.0%	100%
Total	5	26	71	102
% within category	4.9%	25.5%	69.6%	100%

N=102

100% of the Very High risk offenders have been downgraded, and 87.8% of the High risk offenders likewise have been downgraded. A mere 4.9% have been upgraded. A result of these downgrades is a significant reduction in the minimum number of visits required by Offender Managers to the offenders in question. For example, the reduction of the 33 Very High Risk Offenders has resulted in a reduction in the requirement of visits per year by 347. A test detailed later will consider whether those downgraded are lower harm (relatively) offenders.

# How many RSOs have re-offended and what Risk Matrix 2000 category were they?

Table 13 below details whether an RSO has or has not re-offended, split by Risk Matrix 2000 category.

Risk Matrix 20	000 Category	No	Yes	Total
Low:	Count	391	42	433
	% within Category	90.3%	9.7%	100%
Medium:	Count	282	121	403
	% within Category	70.0%	30.0%	100%
High:	Count	121	74	195
	% within Category	62.1%	37.9%	100%
Very High:	Count	23	40	63
	% within Category	36.5%	63.5%	100%
Total:	Count	817	277	1094
	% within Category	74.7%	25.3%	100%

Table 13 – Number of RSOs who have reoffended by Risk Matrix 2000 risk of reconviction category

N=1094, 4=Missing

A chi-square test was conducted to investigate if there is a systematic relationship between re-offending and the risk category applied through Risk Matrix 2000. Higher risk offenders tended to re-offend more, with Very High Risk being over six times the rate of Low risk offenders, while the difference between Medium and High risk offenders was less marked,  $\chi^2(3, N=1094)=125.58$ , p=<.001. The Cramer's

V=.339, p=<.001, is, however, worthy of note, suggesting the risk of reconviction categories are only moderately accurate and that there are discordant non-conforming groups.

Figure 5 below displays the percentage of re-offending RSOs within each Risk Matrix 2000 category.





### Prolificacy Rate

To form a unit of analysis for prolificacy, every RSO had 18 years deducted from their age at the time of the snapshot. The number of convictions they had were then divided by this figure to provide the number of offences committed per year.

Table 14 below reveals the mean prolificacy rate for each of the risk of reconviction groups.

Table 14 – Mear	Prolificacy	Rate per	<b>Risk Matrix</b>	2000	Category
-----------------	-------------	----------	--------------------	------	----------

Risk Matrix 2000 Category	N	Mean	Std. Deviation
Low	426	.1805	.17110
Medium	400	.3059	.57379
High	194	.4393	.81041
Very High	63	.5573	.64573
Total	1083	.2951	.53563

N=1083, 15 excluded as U18

The prolificacy rate increases with an increase in risk category. An analysis of variance was conducted with the prolificacy rate as the dependent variable and the Risk Matrix 2000 risk category as the independent variable. When applied to the entire cohort, the results of the ANOVA indicated there is a significant difference between the groups, F(3)=17.002, p=<.001. This means that the Risk Matrix 2000 category is relevant in explaining the differences in prolificacy rate. Figure 6 below plots the means of the cumulative Jackman CHI scores per Risk Matrix 2000 group.



Figure 6 – Mean Prolificacy rate by Risk Matrix 2000 Category

# Measuring the harm of sex offending

# The Indexes

# Cambridge Crime Harm Index

The Cambridge CHI was applied to the 7053 sex offending convictions found within the cohort.

Figure 7 below shows the offences in rank order from high to low in terms of prison days as per the application of the Cambridge CHI.





Penetrative contact offences with the vulnerable or un-consenting score the highest.

Jackman Crime Harm Index

Figure 8 below shows the rank order by the application of the Jackman CHI, i.e. the actual prison days of the sentencing.



Figure 8 – The Top 20 Offences by Average Jackman Crime Harm Score

As per the Cambridge CHI, penetrative contact offences score highest particularly those committed against the vulnerable or un-consenting, although the actual values of the harm are higher. In contrast to the Cambridge CHI, image offences do not feature in the top 20. Assessing the limits of the two scales, there is a difference. The Jackman CHI ranges from 950 – 3787, whereas the Cambridge CHI ranges from 548 – 2920, consistently producing lower harm values as well as presenting very different values to the Jackman CHI for different offences.

### **Applying the Crime Harm Indexes to the RSOs**

Figure 9 below shows the cumulative crime harm as measured in prison days per Risk Matrix 2000 risk category. The blue lines represent the Cambridge Crime Harm Index, and the red dots represent the same RSOs actual sentencing data in prison days.



Figure 9 – Cumulative Crime Harm by Cambridge and Jackman Indexes, rank ordered within Risk Matrix 2000 categories

As can be seen, there is a power curve within each of the risk categories where a small percentage of the offenders are responsible for a large percentage of the harm as measured in prison days. Contrary to expectation, the mean average harm per offence is highest for the Low Risk offenders, and lowest for the Medium risk.

### Does the Cambridge Crime Harm Index represent actual prison sentences?

It is clear that the Cambridge CHI overestimates the harm of some offenders and underestimates the harm of others. For example, the most common offence, 'Making Photos', s.1 1978, has a Cambridge CHI score of 547.5 (SD=0) but the average actual sentencing which forms the average Jackman CHI score is only 218.7 (SD=324.5), a difference of 328.8. On the other hand, 'Sexual Activity with a Child Family Member', s.25 2003, has a Cambridge CHI score of 10 (SD=0), but an average Jackman CHI score of 1199 (SD=764.7), an underestimation of 1189.

A paired samples t-test was run since it is the same offender having two different scores applied. The t-test revealed that there was a significant difference between the Cambridge CHI (M=3021.48, SD=4516.181) and the Jackman CHI (M=5253.84, SD=9483.089, t(1096)=10.214, p=<.001). That said, a statistically significant positive correlation between the two was found, (r =.613, r =.01; Kendall's tau\_b=.450, p=.01, N = 904)

Correlation statistical tests were also conducted on the average harm per offence of each offender. This is deemed the better metric to assess who is the most harmful, since a large number of low harm offences could accumulate the same number of prison days as one serious offence.

There is a statistically significant correlation between the average Cambridge Crime Harm per offence and the average Jackman Crime Harm per offence (r = .406, r = .01; Kendall's tau\_b= .293, p= .01, N = 904).

Figure 10 below plots each RSO's scores of Cambridge CHI against their Jackman CHI score. The least squares line is added (r=.676,  $r^2$ =0.457531). This shows 46% of variations in one are explained, statistically, by variation in the other.





Again, it reveals the Jackman actual crime harm scores are, in the majority higher than the theoretical schema's scores produced by the Cambridge CHI, but also, on occasion, considerably lower.

The two outliers are RSO RMJEBP0055 and RMJEBP0825. In both cases, their offending involved image related offences, buggery, indecent assault and gross indecency. Here, even for the same offence types, the actual sentencing was sometimes lower than the Cambridge CHI sentencing guideline starting points, when in others the sentencing was much, much higher.

With these findings, it was decided that going forward the Jackman CHI would be used to assess the harm of the cohort.

# How do RSO risk ratings derived from application of the Risk Matrix 2000 compare with the levels of harm inflicted by offenders?

### Cumulative Jackman CHI vs Risk Matrix 2000 Risk Rating

Looking again at Figure 9, it can be seen that the average harm per risk category does not increase. Each of the risk categories contains Low and High harm offenders. In fact, a statistically significant negative correlation was found between the Risk Matrix 2000 rating (Low, Medium, High, Very High) and the cumulative Jackman CHI score, albeit with a low effect size (Kendall's tau\_b= -.085, p=.001, n=904).

An analysis of variance was conducted with the cumulative Jackman CHI score as the dependent variable and the Risk Matrix 2000 risk category as the independent variable. When applied to the entire cohort, the results of the ANOVA indicated there is no significant difference between the risk groups, F(3)=1.531, p=.205. Equally, when filtered to just the RSOs at liberty and under police management, the result was also not significant, F(3)=2.152, p=.092. This means that for cumulative crime harm scores, the risk category which governs the resourcing applied is, surprisingly, not relevant in explaining the difference. Figure 11 below plots the means of the cumulative Jackman CHI scores per Risk Matrix 2000 group.



Figure 11 – Means of Cumulative Jackman Crime Harm by Risk Matrix 2000 rating (1 = Low, 4 = Very High)

# Average Jackman CHI per offence vs Risk Matrix 2000 Risk Rating

Similar to the cumulative Jackman CHI findings, a statistically significant negative correlation was found between the average Jackman CHI per offence and the Risk Matrix 2000 categories (r=-.110, r = .01; Kendall's tau\_b=-.085, p=.01). When filtered to just those at liberty, the finding remains (r=-.126, r= .01; Kendall's tau\_b=-.098, p=.01).

An analysis of variance was conducted with the average Jackman CHI score per offence as the dependent variable and the Risk Matrix 2000 risk category as the independent variable. When applied to the entire cohort, the results of the ANOVA indicated there is no significant difference between the groups, F(3)=2.203, p=.086. Equally, when filtered to just the RSOs at liberty and under police management, the result was also not significant, F(3)=2.798, p=.039. This means that for average crime harm scores per offence, the risk category which governs the resourcing applied is not relevant in explaining the differences. Figure 12 below plots the means of the average Jackman CHI per offence scores by Risk Matrix 2000 group.



Figure 12 – Means of Average Jackman Crime Harm by Risk Matrix 2000 Category (1 = Low, 4 = Very High)

# Does the theory of the 'Power Few' apply to the amount of harm caused by RSOs?

Figure 13 below depicts the RSOs sorted into rank order as per their cumulative Jackman CHI score.



### Figure 13 – Pareto chart showing cumulative Crime Harm by Norfolk RSOs

The Pareto chart above demonstrates that the top 260 (24% of entire cohort, n=1098) most harmful offenders account for 80% of the historic harm relating to past offending. The top 220 (20% of entire cohort, n=1098) most harmful offenders account for 75% of the harm. The top 110 (10% of entire cohort, n=1098) most harmful offenders account for 54% of harm. This suggests that the 'Power Few' is indeed relevant. However, as discussed previously, the average harm per offence is the better metric for identifying who the police should target.

Figure 14 below shows the RSOs sorted into rank order as per their average Jackman CHI score per offence.



#### Figure 14 – Pareto chart showing average Crime Harm per offence by Norfolk RSOs

The Pareto chart above demonstrates that the top 363 (33%, n=1098) most harmful offenders account for 80% of the harm. The top 220 (20%) account for 62% of the harm and the top 110 (10%) account for 41% of the harm.

### 'Power Few' at liberty.

Clearly, when identifying the 'Power Few', whether an RSO is at liberty or not becomes of paramount importance for police targeting. Nevertheless, it is also important that the police are aware of who the most harmful are in prison as, with only rare exceptions, at some point, the RSOs will be released.

Figure 15 below depicts the 363 'Power Few', mapping the most harmful per offence against the years since their last offence. The squares represent the RSO is in prison, whereas the crosses represent the RSO is at liberty.





As can be seen the majority of the most harmful are in prison. Of those most harmful offenders who are 'at liberty' their offending occurred more than a decade ago.

Table 15 below cross tabulates how many of the top 363 are in prison, and what their Risk Matrix 2000 rating is. (N=360, Missing = 3)

Table 15 – How many of the	e 'Power Few' 363	are in Prison by Risk	Matrix 2000 risk of	reconviction category
----------------------------	-------------------	-----------------------	---------------------	-----------------------

Risk Matrix 2000 Category		At Liberty	In Prison	Total
Low:	Count	123	40	433
	% within Category	75.5%	24.5%	100%
Medium:	Count	85	48	403
	% within Category	63.9%	36.1%	100%
High:	Count	36	15	195
	% within Category	70.6%	29.4%	100%
Very High:	Count	6	7	63
	% within Category	46.2%	53.8%	100%
Total:	Count	250	110	1094
	% within Category	69.4%	30.6%	100%

250 of the 363 are at liberty. Of these, 123 are categorised as Low risk which could mean they are only subjected to annual visits. Only 6 of the 250 'Power Few' at liberty are subject to a minimum of monthly visits.

A chi-square test was conducted to investigate if there is a systematic relationship between Risk Matrix 2000 category and liberty status. There was a relationship,  $\chi^2$  (3, N=360)=8.055, p=.045; Cramer's V=.150, p=.045, meaning that the number of RSOs in prison did differ by their risk matrix category. Figure 16 below demonstrates this pictorially.



### Figure 16 – Number of RSOs of the 'Power Few' 363 in Prison or at Liberty by Risk Matrix 2000 category

Table 16 below cross tabulates the status of the entire cohort with whether they are in the top 363, the 'Power Few' and their liberty status.
In the 'Power Few'		At Liberty	In Prison	Total
No:	Count	655	80	735
	% within Category	89.1%	10.9%	100%
Yes:	Count	250	113	363
	% within Category	68.9%	31.1%	100%
Total:	Count	904	193	1097
	% within Category	6934%	30.6%	100%

Table 16 - Number of RSOs at Liberty or in Prison cross-tabulated with being in the 'Power Few'

A chi-square test was conducted to investigate if there was a systematic relationship between being in the 'Power Few' and the liberty status. There was a relationship between these two variables in the cohort,  $\chi^2(1, N=1098)=67.74$ , p=<.001; Cramer's V= .250, p =<.001, meaning those in the 'Power Few' were more likely to be in prison. That being said, over two thirds of the potentially most harmful were at liberty (Table 16).

Figure 17 below depicts the number of RSOs in prison or at liberty in the two groups, the 363, or the rest.



Figure 17 – Number of RSOs in Prison or at Liberty by presence in 'Power Few' or not

This reveals that nearly 90% (655, n= 735) of those not in the 'Power Few' are at liberty, whilst amongst the 'Power Few' 363, this drops to 69%. Nevertheless, 250 of the highest harmers are at liberty, and their risk assessment status as per Risk Matrix 2000 suggests that as many as 123 are only subjected to a minimum annual visit.

## Are Offender Managers downgrading lower harm offenders through the introduced ARMS assessments?

As discussed earlier in this results section, the application of the ARMS assessment tool has brought about reductions in the risk rating categories of the RSOs. Of the 102 assessments carried out at the time of this analysis, 71 reduced the risk category, 26 remained the same and only 5 increased.

With the creation of the harm metric, statistical tests were conducted to assess whether the RSOs who had been downgraded were lower harm than the remaining RSOs in their risk category. Unfortunately, owing to the small numbers, the tests were not significant even though the plotting of the means of the average Jackman CHI per offence showed an increase in the case of the five upgrades suggesting the offenders were more harmful than others in their risk category. Similarly the harm caused by those who were downgraded was lower than those in their original risk category.

A t-test for independent samples was conducted to test whether the average Jackman CHI per offence of those RSOs downgraded from a High Risk Matrix 2000 rating following ARMS assessment was significantly different from the High Risk Matrix 2000 rated RSOs who were yet to be assessed. Indeed, those downgraded

through ARMS were significantly lower than those yet to be assessed, t(127.83)=3.415, p=.001.

In addition a t-test for independent samples was conducted to test whether the average Jackman CHI per offence of the Very High RSOs downgraded following ARMS assessment was significantly different from the average Jackman CHI per offence of the 'Power Few' RSOs. There was an extremely statistically significant difference, t(394)=7.16, p=<.0001, meaning those downgraded had a lower average harm per offence. Comparing the mean Jackman CHI per offence of the downgraded Very High Risk offenders, with the 250 of the 'Power Few' at liberty the result remained extremely significant, t(281)=7.83, p=<.0001.

It seems, therefore, that through the ARMS assessment, the downgrading of offenders is reducing the targeting of lower harm offenders, albeit, only 102 of the 1098 offenders have been assessed.

# Research Question 3: What are the offending patterns of the cohort of RSOs in Norfolk?

## Which offences were committed by what Risk Matrix 2000 Category of RSO?

Table 17 below cross-tabulates the number of each offence committed by the various Risk Matrix 2000 risk categories.

			RM2000 Risk Level					
Offence Group	Offence Category	Initial Sex Offence Type	Very High High	N	Aedium Lov	v U/	к т	otal
Adult	Rape	Rape s.1 2003	5	35	103	60		203
		Rape s.1 1956	15	53	62	87	3	220
	Penetration	Buggery s.12 1956	17	10	32	43	5	107
		Assault by penetration s.2 2003	2	6	19	26		53
		Incest s.11 1956	6	5	14	24		49
		Sex with an adult relative: nenetration s 64 2003	-	-	8	5		13
		Causing a person to engage in sexual activity without consent (penetration) s /a 2003			2	5		2
		Intercourse with an animal s 69 2003		1	-			1
	Non Depatration	Indecent accoult on female c. 14 10E6	62	160	270	560	2	1072
	Non-Penetration	Indecent assault on remain s.14 1950	05	140	2/0	101	2	1072
		Indecent assault on male 5.15 1956	80	148	150	181	8	5/3
		Sexual Assault 5.3 2003	11	48	82	64		205
		Exposure s.66 2003	95	/3	13	2	4	18/
		Fail Notification s.91 2003	12	23	/5	21		131
		Breach of SOPO s.113 2003	31	37	46	15		129
		Voyeurism s.67 2003	3	22	10	11		46
		Indecency 1956 s.13			2	8		10
		Committing an offence with intent to commit a sexual offence s.62 2003	5	2	1	2		10
		Improper use of public electronic communications network s.127 2003 Communicatrions Act		5	1			6
		Causing a person to engage in sexual activity without consent (Non-penetration) s.4b 2003			1	2		3
		Persistent soliciting s.2 1985 SOA	1	1				2
		Controlling prostitution for gain s.53 2003				1		1
		Assault with intent to commit buggery s.16 1956	1					1
		Trafficking within the UK for sexual exploitation s.58 2003				1		1
		Permitting use of premises for unlawful sexual intercourse s.26 1956		1				1
		Procuring man to commit homosexual act s.4 1967	1					1
		Indecent assault on a woman's 14 1956				1		1
		Sexual activity in a nublic layatory s 71 2003		1		-		1
		Immoral earning s 20.1056	1	1				1
Child	Pana	Pape of a child under 13 s 5 2002	1	6	24	22		74
ciniu	Каре	Assault of a child under 12 by popetration c 6 2002	2	6	34	30		64
		Assault of a child under 15 by period atom 5.6 2005	2	7	20	50	1	42
		Intercourse with Gh 0133.5 1956	1	/	18	15	1	42
		Intercourse with girl under 16 s.6 1956		3	6	1		10
	Penetration	Sexual activity with a child s.9 2003	10	59	166	164	3	402
	Non-Penetration	Gross indecency with child (Girl) Under 16 s.1 1960	34	40	85	140	5	304
		Sexual assault of a child under 13 s.7 2003	4	32	94	106		236
		Sexual Activity with a child family member s.25 2003		2	19	93		114
		Causing or inciting a child to engage in sexual activity s.10 2003	6	17	36	14		73
		Causing or inciting a child under 13 to engage in sexual activity s.8 2003	4	13	12	4		33
		Meeting a child following sexual grooming etc s.15 2003		10	10	5		25
		Engaging in sexual activity in the presence of a child s.11 2003	3	6	10	2		21
		Causing a child to watch sexual act s.12 2003	1	3	4	9		17
		Inciting a child family member to engage in sexual activity s.26 2003				8		8
		Arranging or facilitating the commission of a child sex offence s.14 2003		1	3	2		6
		Abuse of a position of trust: causing or inciting a child to engage in sexual activity s.17 2003		1	1			2
		Abduction of Girl under 16 s.20 1956		1	1			2
		Abuse of position of trust: Sexual activity with a child s 16 2003				2		2
		Causing/Inciting/Controlling child prostitution or nornography s 48 2003			1	2		3
Vulnerable Adu	Penetration	Sexual activity w/nercon w/ mental disorder impeding choice (Penetration) s 30a 2003			-	- 8		8
vullierable Aud	Non Departmention	Sexual activity w/person w/ mental disorder impeding choice (Penetration) 5.30a 2005	002			0		- 0
Image /Dhote	Image /Dhote offen	38 Care workers: sexual activity with a nerson with a montal disorder	505			0		0
inage/Photo	inage/Photo offen	Melice Photos 1070 s 1	107	220	E 40	1		1000
		Waking Photoseck 1000 - 100	127	330	540	144		1090
		Prossessing Photograph 1988 5.160	31	109	140	144		424
		Distributing indecent photo 19/8 1	19	18	26	103		166
		Extreme Pornography CJIA 2008, S63	7	24	29	43		103
		Indecent photographs of persons aged 16 or 17 (Possession) s.45a 2003	5		21	67		93
		Taking Photos s.1 1978	10	42	30	8		90
		Indecent photographs of persons aged 16 or 17 (Production) s.45c 2003				1		1
		Indecent photographs of persons aged 16 or 17 (Distribution) s.45b 2003	1					1
			621	1367	2211	2823	31	7053

#### Table 17 – Number of offences committed by RSOs by Risk Matrix 2000 Category

As can be seen, 312 (73.76%) of the 423 rapes against adults are committed by adults rated Medium and Low by the Risk Matrix 2000 category. Indeed, 485 (74.85%) of 648 penetrative offences, are committed by offenders rated Low or Medium, with 245 (37.8%) of the 648 committed by those rated as low. Only 45 (9.28%) are committed by Very High risk offenders.

A similar picture is found with the penetrative offences against children. Of the 592 offences, 243 (41.05%) were committed by Low and 493 (83.28%) by Low and Medium. Only 14 (2.36%) were committed by Very High risk offenders.

Of the 2568 image related offences, 1053 (41.00%) are committed by Low risk offenders, 1839 (71.61%) by Low and Medium. 200 (7.79%) are committed by Very High risk offenders.

It should be re-iterated that the risk rating is a risk of re-conviction, and as discussed, does not take into account the harm. These findings demonstrate this.

The figures below graphically depict the offences and the breakdown by Risk Matrix 2000 category.







Figure 19 – Number of Child Victim Offences by Risk Matrix 2000 category



Figure 20 – Number of Image Offences by Risk Matrix 2000 category

#### Do RSOs commit only sexual offences?

Table 18 below displays how many of the cohort of 1098 RSOs had committed an offence other than a sexual offence.

rable 20 manuaci of hoos mile commit solely sexual offender	Table 18 –	Number	of I	RSOs who	commit	solely	sexual	offences
---	------------	--------	------	----------	--------	--------	--------	----------

Commit other types of offence?	Frequency	Valid Percent
No	545	49.6
Yes	553	50.4
Total	1098	100.0

The cohort was almost precisely divided in half between those who specialise

in sexual offending and those who commit multi-category offences.

Is there a difference in risk rating between multi-category offenders and solely sexual offenders?

Table 19 below cross-tabulates the Low risk RSOs as defined by Risk Matrix

2000 against the remaining RSOs grouped together from Medium to Very High.

able 19 - Number of RSOs who are sol	ly sexual offenders or multi-	category offenders by Ri	sk Matrix 2000 Category
--------------------------------------	-------------------------------	--------------------------	-------------------------

Risk Matrix 2000 Category		Multi- Category Offenders	Soley Sexual Offenders	Total
Very High, High & Medium				
	Count	415	246	661
	% within Category	62.8%	37.2%	100%
Low: Count		127	306	433
	% within Category	29.3%	70.7%	100%
Total:	Count	542	552	1094
	% within Category	49.5%	50.5%	100%

N=1094, 4 Missing

Far fewer of the Low risk of reconviction RSOs are versatile (Table 19;  $\chi^2$ =117.13, df=1, p=<.001; Cramer's V=.327, p=<.001). Only 29% have committed other types of non-sexual offence compared with 63% within the higher risk of reconviction RSOs.

## Do RSOs specialise in a specific sexual offence?

483 (44%) of the RSOs (n=1098) specialised in a specific sexual offence. Of that 483, 243 committed the offence twice or more, 159 three times or more, 113 four times or more and 87 five times or more, which could more definitely be defined as specialism. Figure 21 below demonstrates this.



Figure 21 – Number of RSOs who committed a single sexual offence a number of times

#### Do RSOs specialise in the same category of victims?

Table 20 below displays the number of RSOs who specialised in certain types of victims; Adult only, Child only, Vulnerable Adult only, Image only or a combination.

Number of Categories	Category	Offenders	% of Cohort	Solely Sex Offender	Multi- Category Offender
1	Adult only	415	38%	156	259
1	Child only	182	17%	101	81
2	Adult + Child	182	17%	84	98
1	Image only	164	15%	120	44
2	Adult + Image	67	6%	33	34
2	Adult + Child+ Image	42	4%	24	18
2	Child + Image	40	4%	29	11
1	Vulnerable Adult only	6	1%	6	0
	Total	1098		553	545

Table 20 – Number of RSOs who specialise in certain types of victims

The majority of offenders, 38%, only targeted adult victims. 17% targeted children only, with a similar 15% only committing image offences. 17% committed offences against adults and children. Those who targeted adult victims are more versatile compared with all the other categories, whilst those who only committed image offences were also more specialised, 73% of them being solely sex offenders.

Both the Cumulative Jackman CHI scores, and the average Jackman CHI per offence scores were applied to each category. Table 21 below shows the means of the cumulative Jackman CHI scores per category, while Table 22 shows the means of the average Jackman CHI per offence score per victim specialism category.

Table 21 – Means of the cumulative	e Jackman CHI scores f	for RSOs in the various	victim specialism categories
------------------------------------	------------------------	-------------------------	------------------------------

Victim Category	N	Mean	SD
Child & Adult & Image	42	15387.18	16455.850
Adult & Child	182	9602.92	11395.355
Vulnerable Adult Only	6	7510.83	10373.080
Adult & Image	67	6537.62	13363.990
Adult Only	415	4340.38	8517.506
Child Only	182	3303.75	6094.710
Child & Image	40	5547.14	5258.039
Image Only	164	1597.31	4063.201
Total	1098	5249.05	9480.091

As can be seen, the more versatile the offender the more harmful in terms of the accumulation of harm.

Table 22 - Means of the average Jackman CHI scores per offence for RSOs in the various victim specialism categories

Victim Category	Ν	Mean	SD
Vulnerable Adult Only	6	3162.78	1556.525
Adult Only	415	1054.02	1339.040
Adult & Child	182	984.02	812.482
Child & Adult & Image	42	805.05	705.686
Child & Image	40	532.75	573.806
Child Only	182	690.66	846.385
Adult & Image	67	405.84	656.380
Image Only	164	135.43	256.126
Total	1098	788.44	1058.940

Interestingly, when assessing the average harm per offence, the picture changes, with vulnerability clearly becoming a factor. The one consistency is that image only offences are the least harmful whichever metric is assessed.

#### Single Category Offenders

Assessing only single victim category specialists, i.e. Adult only, Child only, Image only and Vulnerable Adult only, an analysis of variance was conducted with the Cumulative Jackman CHI score as the dependent variable and the Victim Specialism Category as the independent variable. The results of the ANOVA indicated a significant effect, F(3,766) = 6.294, p=<.0001 meaning RSOs who only victimise Vulnerable Adults are the most harmful, and those who specialise only in images are the least. Figure 22 below plots the means of the cumulative Jackman CHI scores of each Victim Specialism Category.



Figure 22 - Means of the cumulative Jackman CHI scores for RSOs in the various victim specialism categories

Using the same method but applying the average Jackman CHI per offence as the dependent variable, there is a similarly significant finding, F(3, 766)=38.307, p =<.0001. Figure 23 below plots the means of the average Jackman CHI per offence score per victim specialism category.



Figure 23 - Means of the average Jackman CHI scores per offence for RSOs in the various victim specialism categories Dual Category Specialists

Assessing dual victim category specialists, i.e. Adult and Child, Adult and Image, Child and Image, an analysis of variance was conducted with the Cumulative Jackman CHI score as the dependent variable and the Victim Specialism Category as the independent variable. The results of the ANOVA indicated there is no significant difference between the groups, F(2, 288)=3.224, p=.041. However, applying the average Jackman CHI per offence as the dependent variable, there is a significant difference, F(2,288)=17.243, p=<.0001, meaning that offenders who victimise adults and children are the most harmful. Figure 24 below plots the means of the average Jackman CHI per offence score per victim specialism category.



#### Figure 24 - Means of the cumulative Jackman CHI scores for RSOs in the single victim specialism categories

#### **Triple Category Offenders**

The mean cumulative Jackman CHI for those offending against adults, children and images was the highest at 15387.18 (SD= 16455.850, n=42), but the mean average Jackman CHI per offence was 805.04 (SD=705.686), which ranked only fourth.

## Differences between groups

A t-test for independent samples was conducted to test whether the difference in cumulative Jackman CHI was significant between the single category offenders and the dual. Indeed, the difference was extremely statistically significant, t(1054)=8.07, p<0.0001, meaning that the dual category offenders accumulate more harm. Furthermore, a t-test was conducted to test whether the difference in cumulative Jackman CHI was significant between the triple category offenders and the dual and the difference was, again, extremely statistically significant, t(329)=33.96, p=<.0001, meaning those who are the most versatile cause the most harm.

This finding is further supported by a correlation test conducted between the cumulative Jackman CHI scores of the three groups of victim specialism (Single, Dual and Triple) which determined Kendall's tau\_b=.285, p=.01, meaning the more versatile are the more harmful, though with such a scatter, other factors are clearly in play.

#### **Summary**

This section presented the results of the analysis. The first section revealed the findings relating to the demographics. The average age of sex offenders is 48 years old, almost all are male, and, in line with Norfolk's ethnic profile, most (94%) are White British.

The second section detailed the risk of reconviction categories revealing only a small percentage, 5.74% (n=1068) of offenders were categorised as Very High risk of reconviction. Two methods of Crime Harm Index were then applied to the RSOs, the Cambridge CHI and the Jackman CHI based on actual sentencing. The findings suggest the better method for identifying the harm of RSOs, both cumulative harm and average harm per offence was the Jackman CHI. In particular, the actual harm as identified through the Jackman CHI was higher than the Cambridge CHI.

Using the Jackman CHI, it was possible to determine that there is a 'Power Few' of RSOs, 363 being responsible for 80% of the harm, and that the risk of reconviction categories of these 'Power Few' as defined by Risk Matrix 2000 are not

all High or Very High. This means these RSOs are not currently the most targeted by the Constabulary. Indeed, statistical testing on the entire cohort found that the risk of reconviction category was not significant in explaining the different levels of harm inflicted by the RSOs.

On the other hand, analysis revealed that the recent roll out of ARMS assessments has downgraded RSO risk ratings in 69.61% (N=102) of cases. Statistical testing revealed a significant relationship with regards to the harm scores of the downgraded RSOs in that they were lower harm offenders.

Higher risk of reconviction RSOs tended to re-offend more with Very High risk offenders being over six times the rate of Low risk offenders.

The third section detailed the offences carried out by each category of RSO. Notably of the penetrative offences, nearly three quarters were committed by Low or Medium Risk Matrix 2000 category RSOs. 50% of RSOs (n=1098) specialise in sexual offending only. Furthermore, 44% (n=1098) have only been convicted for one specific offence type. The Low risk of reconviction offenders were far less likely to be versatile (Table 19;  $\chi^2$ =117.13, df=1, p=<.001).

Finally, the types of victims targeted by RSOs were assessed. Where specialism occurred, the most common was Adult only victims, 38% (N=1098). The more categories an offender committed offences within, the more harm in terms of cumulative Jackman CHI they caused (M=15387.18, SD=16455.850), but the most harmful offending, when assessing the average Jackman CHI per offence, was the convictions committed by RSOs against vulnerable adults (*M*=3162.78, SD=1556.525).

Contact offences were more harmful than non-contact. Thankfully, the most serious offences are less common. Offences against vulnerable adults were the most harmful offending but there were only six such offenders within the cohort.

These findings have significant policy implications which are explored in the discussion section which follows.

## Discussion

The findings documented in the previous chapter have interesting implications regarding how Norfolk Constabulary currently targets RSOs. Ultimately, the current approach where risk of reconviction matrices are used to determine the minimum number of visits carried out by Offender Managers is called into question.

This chapter discusses the limitations and strengths of the study, the findings in relation to the original research questions, the significant policy implications of the findings and the areas for further research and development.

## **Limitations and Strengths**

#### Limitations

It is important to consider the limitations of the study before assessing the potential policy implications.

#### Data of the convicted

The fundamental limitation is the fact that the research is based only on data of the convicted. This, therefore, misses both the crimes which are never reported to the police and the crimes which are reported to the police but never detected. The three year average detection rate for sexual offences in Norfolk is 32% over the last five years. As a result, the data available can only provide a small part of the total picture.

## Assumptions

Assumptions by their very nature become risks. With this research there is an acceptance that the visit regime approach of Offender Managers is a beneficial

approach in terms of prevention. Ultimately, it matters not whether Offender Managers are 'targeting' the correct RSOs if this approach does not work.

#### **Dates**

The most frustrating element of the data capture was the inaccuracies relating to the dates of the offending. The data on PNC does not provide accurate dates. As such, no analysis was possible in terms of a longitudinal study to identify patterns of offending over offenders' life cycles. For the purposes of this thesis, capturing this data accurately would never have been possible because many of the RSOs offences would have been captured on crime systems across the country outside of Norfolk's remit. However, with more time, it would have been of value to trawl the crime system of Norfolk to identify the actual offending dates where possible.

Although this would have produced a reduced sample, the data would have provided valuable additional variables to analyse, for example, whether RSOs become more versatile and harmful with age, or vice versa, which could assist the constabulary in focusing on who should be targeted.

That said, the age finding presented in the results, mean age of 48.03 (SD=16.047) is comparable with the findings from the other descriptive analyses discussed in the literature review, since these studies faced the same limitation.

#### **Crime Harm Indexes**

As discussed in both the methodology and results chapters, the application of a Crime Harm Index is fraught with difficulty. Ultimately the Cambridge CHI proved not to be an effective measure. It undervalued harm or gave excessive harm weightings to certain offences, which, in practice, were viewed by courts as less serious. With the ability in this case to obtain the actual sentencing data, this research would argue that the Jackman CHI is an improvement, but it is by no means the perfect solution.

There are many factors which affect the actual sentences given by judges, not least the personal biases of the judges themselves. Plea bargains, co-operation and charges of convenience will all be having an effect. Furthermore, some convictions were lacking detail on PNC, with 'no separate penalty' applied, this despite the clear presence of a victim and an incidence of harm. Additionally, there is no score applied to TIC convictions and the actual number of offences is not, in all cases, captured accurately. For example, a rape conviction could have a date span of a year. How many rapes actually occurred in that year?

The positive argument 'for' the Jackman CHI is that the judge takes this and all other aggravating and mitigating factors into account when handing down the sentence, but it is clear that the inter-rater reliability will be inconsistent. Nevertheless, use of the Jackman CHI has provided a measure of harm, an element which, previously, was sorely lacking.

## External Validity

By analysing this sample of police recorded data from national systems, the study will be relevant to other England and Wales police forces. The methodology chapter details precisely how the study could be replicated. However, because the focus of this study has been limited to those RSOs within Norfolk, a largely rural county, there is opportunity to challenge the external validity of the findings particularly when considering application to more metropolitan forces.

#### Strengths

The key strength of this research is the fact that a large cohort of RSOs was assessed. Individual records from both ViSOR and PNC were obtained and data mined to identify a very thorough dataset for the purposes of analysis. This resulted in a full and sizeable sample with offending histories for the statistical testing which aided in the significance of the findings.

In addition, despite the limitations above, this study retains strong internal validity. Because police recorded data was used, there are national standards to the classifications as well as thorough audit. The data is linked to unique offender records by dedicated operatives and subject to rigorous checks.

Because of the high risk nature of the RSOs and the strict legislative requirements in terms of sexual offenders being input on the register, the data captured on ViSOR was thorough, and as such, the researcher can have confidence that known sex offenders within Norfolk will not have been omitted from the research. This being the case, the data available and sourced created a large number of variables for analysis.

The research also highlighted shortcomings of the Cambridge CHI, creating the Jackman CHI, an evidence based source of measuring harm that can be applied by any police force, not only in England and Wales but worldwide. The Jackman CHI offers a consistent method for understanding the difference in harm between sexual offences and sexual offenders, measured in prison days and strikingly demonstrates the limitations and dangers of existing risk assessment guides which do not account for harm sufficiently.

#### **Answers to the Research Questions**

This research set out with the aim to answer three overarching research questions.

#### What are the characteristics of RSOs in Norfolk?

Of the 1098 RSOs in the cohort, perhaps it is unsurprising that 98.8% are male, 94.9% are British, and 94.2% have a self-defined ethnicity of White British when one considers the 2011 census data for the county which found that the usual resident population is 92.4% White British (Norfolk Insight, 2011).

The fact that the mean age is 48.03 (SD=16.047) is a similar finding to the descriptive analyses discussed in the literature review, 44.2 years old (SD = 13.9) (Lussier et al., 2010), 44 (Motiuk & Vuong, 2005) and 44.8 (SD=13.32) (Ackerman et al., 2011).

It is noteworthy that the age of registration is lower, 42.48 (SD=15.301) with a youngest age of 12, which hints at the fact that the age of offending is younger.

Albeit, this is a finding, what would be more useful in terms of policy and tactics would be to be able identify the age at each offence to analyse the offending more closely and identify patterns.

## Can application of a harm index contribute to a better method of identifying RSOs which police should 'target' to protect the public?

The initial approach to answering this question was to assess what risk matrices were already in use. As discussed, these matrices currently are lacking a thorough measure of harm, and focus on the likelihood of reconviction. It is therefore not as pleasing a result for the citizens of Norfolk that less than 6% of the 1098 RSOs are classified as having a Very High risk of reconviction as per the Risk Matrix 2000 tool.

The findings relating to the re-offending in relation to Risk Matrix 2000 category highlight this issue all the more. The prolificacy rate in figure 6 displays the correct trend, increasing with an increase in risk. However, although there is a statistically significant difference in the groups and 63.5% of the 63 Very High Offenders had indeed re-offended, there were discordant groups with nearly 10% of the Low risk RSOs also reoffending.

The association of greater prolificacy with higher risk confirms the emphasis on re-conviction rather than harm in establishing the risk priorities and dividing the cohort into groups. Within the Very High Risk group, a seventh had committed the least harmful, non-contact offences, such as exposure and voyeurism.

This corresponds with the findings discussed in the literature review that the Risk Matrix 2000 tool is only moderately accurate in terms of predicting who will reoffend. Ultimately the constabulary is using a moderately accurate tool that prioritises some of the lesser harm offenders. Not ideal.

The creation of the Jackman CHI, based on offenders' actual offending histories, further highlights this issue. Harm and risk of re-offending are negatively related. The four risk category groups as defined by Risk Matrix 2000 did not differ in terms of harm, either cumulative across all offences each offender had committed or the average harm per offence. This is not the finding one would have hoped to see.

Perhaps the most striking finding in this research is the identification of a 'Power Few', the third of sex offenders who caused 80% of the total harm of the

cohort. This was so significant a finding that the immediate next step was to identify who of these 363 were in prison, and pass on the details to the Norfolk PPU. 250 are at liberty, a surprisingly high number given the finding that they are the most harmful, and, disappointingly, 123 of those 250 are currently rated as Low, with a minimum of an annual visit. Given the amount of harm these offenders would cause if they were to re-offend, the constabulary would have to be certain that an annual visit is sufficient, but without the metric which this thesis provides and which clearly identifies the harm, it is understandable that the current approach was following the stipulated regime and reacting to intelligence received.

The final element, having created an applicable harm metric in the Jackman CHI, assessed whether the recent downgrading of RSOs through the application of ARMS, was, through professional judgement, lowering the risk category of lower harm offenders. Although the numbers were small, this appears to be the case. ARMS remains a tool assessing likelihood, so this could be down to chance, but Offender Managers know their offenders and perhaps professional judgement is seizing the opportunity presented. It is hoped that this is the case rather than a more cynical approach to reducing the number of visits to help the unit's performance given the high risk nature of the business and the integrity of the Offender Managers.

### What are the offending patterns of the cohort of RSOs in Norfolk?

Given the findings discussed above, it is perhaps not surprising that every sort of sexual offence is committed by offenders currently classified in every group from Low to Very High. It is notable that 312 (73.76%) of the 423 rapes against adults are committed by offenders currently classified as Low or Medium risk offenders. Very High risk offenders are only responsible for 9% of the 648 penetrative offences against adults and 2% of the 592 penetrative offences against children, further evidence that the more harmful offenders are not receiving the most attention.

When assessing specialisms, the finding that 50.4% of the 1098 offenders only commit sexual offences is interesting in terms of 'targeting' as well as the fact that 483 of the cohort have only committed one specific type of sexual offence. 87 RSOs have committed the same offence five times or more, which would definitely suggest specialism and surely facilitates the design of appropriate bespoke interventions for prevention.

The findings relating to victim specialisms are also noteworthy. Those who offend against the most types of victim, adult, child and image, accumulated the most harm. Probing further, it turned out their prolificacy rate was higher as was their average age.

This means that the average harm per offence is once again, as with the 'Power Few' the better metric, and here the offences against vulnerable adults stand out. Contact offences are clearly more harmful than non-contact offences with image related offending consistently the lowest ranked. However, it is a little surprising that the offences against adults (M=1054.02, SD=1339.040) were more harmful than against children (M=690.66, SD=846.385). This leads to a challenge. Of all offending, image related is the easiest to evidence and therefore the simplest to target. But is this appropriate?

## **Policy Implications**

Norfolk Constabulary, along with all Constabularies in England and Wales, has adopted the College of Policing Guidance with regards to the formation of a PPU and the use of the various risk of reconviction tools, Risk Matrix 2000 and more

latterly ARMS applied to the RSOs within their remit. These Risk of Reconviction tools are used as guides for the resource applied to the RSOs. A Low risk offender will receive at least an annual visit from a pair of Offender Managers, a Medium risk offender will receive at least a bi-annual (twice a year) visit, a High risk offender will receive at least a pi-annual (twice a year) visit, a High risk offender will receive at least a pi-annual (twice a year) visit, a High risk offender will receive at least a pi-annual (twice a year) visit, a High risk offender will receive at least a quarterly visit and a Very High risk offender will receive at least a monthly visit. Current performance tracks the achievement of these visits and the last policing review within Norfolk Constabulary provided additional resource to the unit based on the number of visits required as predicted by the number of each category of RSO.

The number of RSOs, as described in the introduction, is on the rise, meaning that the capacity of the PPU is once again stretched. Unfortunately, this rise in demand has coincided with a period of austerity and stringent budget cuts. This has created a need for an alternative technique of 'targeting' RSOs.

## 'Targeting the wrong offenders?'

The findings lead to a fundamental question. Is Norfolk Constabulary, by following College of Policing Guidance and using a risk of reconviction tool as the method of applying resource, 'targeting' the wrong offenders? Allocating resources to the prevention of offences that cause less harm appears cost-ineffective.

For example, RSO RMJEBP0615 has committed four offences. The average Jackman CHI per offence is 11.25 with a career cumulative score of 45. Because the risk assessment category is Very High, this RSO has been receiving a minimum of monthly visits since 2010.

In contrast, RSO RMJEBP1037 has committed 15 offences. The average Jackman CHI per offence is 2068 and the total cumulative harm is 31,025. Recently

released from prison, the risk of reconviction category is Low meaning the minimum level of visits will be annual. So, the existing risk assessment and prioritisation strategy appears to leave potential victims vulnerable. Even a very low risk of a very serious offence taking place should justify police attention.

Clearly, without the specific details of these two RSOs, it is not correct to provide a definitive verdict, but the question should certainly be posed, especially when one considers that the findings with regards to the accuracy of the risk of reconviction tool are in line with previous research, that the tool is only moderately accurate (Cramer's V=.339, p=<.001), with discordant offenders in each of the groups.

In the absence of an accurate prediction tool for risk of reconviction, it seems critical that the Constabulary should understand who the most harmful offenders are and closely monitor them, but to date little account of the harm of the offending has been taken. This research has created a harm metric in the Jackman CHI and identified that there is a 'Power Few' of RSOs, 250 most harmful offenders at liberty. As described, 123 are risk categorised as Low, and a further 85 as Medium meaning they are not currently the most 'targeted'. The crucial question is, is this appropriate, given 10% of Low risk offenders re-offend? Only detailed assessment of the individual cases can tell. And it is that kind of detailed assessment that this research would encourage as a new policy because such a risk seems unacceptably high.

Although exposure would be unpleasant for anyone who witnessed it, is the level of harm caused by such an offence worthy of such dedicated time from two Offender Managers? Should not the Offender Managers be assessing those whose average harm per offence is the highest and who have offended most recently? It

would appear important for Offender Managers to understand the most harmful individuals, no matter how long ago the offending, to understand the dynamic factors which are increasing or decreasing the likelihood of their re-offending and make sure that the constabulary is as certain as it can be that they are not 'under the radar'.

#### Combining likelihood with harm

This research does not propose that harm scores should be the sole tool used to govern resourcing. There is little point monitoring a very high harm offender who is no longer capable of committing the offences of their past. Harm is just one element to consider. Risk tools normally combine likelihood with impact, whether in a 4 x 4 or 5 x 5 matrix. A similar approach could be designed here:



But, practicality must be considered. In the current times of austerity, carrying out the thorough research above is not feasible for Offender Managers.

#### A 'Power Few' Strategy?

Since the findings have identified that there is a 'Power Few', but at the same time acknowledging the time, cost and resource constraints, one strategy could be to 'target' these RSOs in the first instance. Profiles of each of the 250 at liberty could be produced, dynamically assessing their likelihood of re-offending. The most harmful RSO currently at liberty offended 25 years ago. Speaking with the relevant Offender Manager, the RSO is transformed from the man who was that offender all those years ago; he is now married, employed and highly unlikely to re-offend. As such, the ARMS rating about to be carried out will result in a Low risk rating. But what if this offender gets divorced? Or loses their job? What if the marriage bears a child? It seems vital that the constabulary know how harmful this man, and the rest of the 'Power Few', is capable of being and that such offenders are tracked to determine re-offending risk more accurately.

Going forward, Offender Managers, upon registering a new RSO, could apply the methodology detailed above and continue to identify the most harmful, refreshing the 'Power Few'. In addition, if, throughout the current visit regime, low harm offenders are identified such as those who commit exposure, a risk based approach could be taken which reduces the number of visits carried out, contrary to the High or Very High risk of reconviction category they are currently in. This could alleviate visits and through this efficiency enable Offender Managers to focus on the more harmful without growth of resource.

Ultimately, the germ of this thesis began from the comment from the then head of the PPU that the risk assessment tools were not highlighting the correct offenders. The findings relating to the rollout of ARMS and the downgrading of lower harm offenders suggest that Offender Managers are using the new tool as the mechanism to downgrade those they believe do not warrant the high intensity supervision. Applying the Jackman Crime harm metric would provide an evidence base for these decisions.

## **Specialists**

Since it has been identified that certain RSOs specialise in their victim categories, this could be useful in terms of 'targeting' the interventions and the investigative activity to determining whether further offences have occurred. Image specialists should have all possible devices and avenues for image related offending

searched. Child only offenders could have interventions and conditions set which restricts their access to the victims they seek.

However, lacking the detail of the dates and the order that RSOs commit their offences, it is not possible to determine whether those who started with non-contact images progressed to contact offending, or vice versa. Therefore, much like in the case of patients with Multiple Sclerosis, it is not possible to predict with accuracy that a patient who is currently 'relapsing-remitting' will remain so, as opposed to moving into the 'progressive' category, so it cannot be said with confidence that because someone is currently an image specialist, as 15% of the currently cohort are, they will remain so. 14% of the current cohort has committed image offences and other types of offence, but unfortunately the chronological order of this offending is unknown.

#### Vulnerable adult offences

Since offences against vulnerable adults were on average the most harmful, it would be a worthy practice for the PPU to 'target' the relevant institutions within the county to ensure that offending is not going unnoticed. Prevention activities could focus in this area.

### **Multi-victim category offenders**

The findings discovered that the offenders who accumulated the most Jackman CHI harm were those who did not specialise in one category of victims but offended against adults, children and carried out image related offending. This seems logical in terms of the widened opportunity and availability of victims if there is no discrimination. So, identification of the RSOs who offend in all categories may lead to better profiling and 'targeting' of interventions, knowing that these RSOs have the greatest opportunity to inflict harm.

## **Further research**

Inevitably, while this research has answered many questions and identified many interesting findings, it has also raised a significant number of further questions. Further research would enhance our understanding.

#### Dates

As previously stated, identifying precise dates for the offences committed would greatly enhance the analysis possible within the cohort of offending. This would mean that rates of Crime Harm inflicted, patterns of progression or regression, and genuine prolificacy rates could be studied with greater accuracy to an extent that might influence police policy and tactics.

#### Replication

An immediate progression would be for another force area to replicate this study. Because the ViSOR system and the PNC are readily available to all forces, this would be very easy for forces in England and Wales. It would also eliminate any issues of external validity where these findings, particularly the demographics may be particular to Norfolk.

## A new Risk Matrix which combines likelihood and harm

The research which could greatly enhance how all forces manage their RSOs would be to create a risk matrix which takes into account both the likelihood and impact to create a risk category for resourcing. However, for years many have tried to predict just likelihood and, as per the literature review findings, only with moderate success. Nevertheless, such a piece of research would improve police forces' ability

to 'target' the most harmful offenders and focus where the likelihood of offending was at a critical point.

## **Conclusion**

Sexual offending is one of the most harmful types of criminal behaviour. The Sex Offenders Act 1997, created the Sex Offenders Register to contain the details of any individual convicted, cautioned or released from prison for a sexual offence against children or adults. This was to provide a tool to help Police Forces fulfil their responsibility to assess and manage risk, to reduce the likelihood of harm and, where possible, prevent harm occurring altogether (College of Policing, 2015).

Norfolk Constabulary has a PPU resourced with Offender Managers, as have all Forces in England and Wales. This unit is dedicated to 'targeting' the RSOs at liberty from the overall cohort of 1105. A risk of reconviction matrix is applied to every offender which grades from Low to Very High and governs the minimum number of visits a pair of Offender Managers will have to carry out. The performance framework for PPU focuses on the maintenance of this visit regime.

Unfortunately, all the risk assessment tools available to Offender Managers focus on the likelihood of re-offending. None take sufficient account of the level of harm of the offending. Even with decades of research into these predictive tools for the likelihood of re-conviction, it is apparent that even the best are only moderately accurate. This research further evidenced the moderate accuracy of Risk Matrix 2000.

What has been missing is the measure of harm. Not all crimes are equal, and sadly sexual offences can be some of the most harmful of all. Perhaps this lack of a harm metric is because measuring harm is so problematic, with few tools available as discussed in the literature review. The recent advent of the Cambridge CHI is a progressive step, but through this research the Cambridge CHI has been shown to

be too inaccurate to be of use when applied to known sexual offenders with known criminal records and known sentences.

The development of the Jackman CHI, building on the principles of the Cambridge CHI, but using actual sentencing data, has provided a consistent instrument to measure the harm inflicted by the RSOs. And, importantly, the method for identifying the harm is not limited to England and Wales. It could just as easily be applied worldwide as long as sentencing data is available.

Having created a metric for harm, this study examined the entire cohort of 1098 RSOs in Norfolk as of the 4<sup>th</sup> April 2015 applying the Jackman CHI to identify the cumulative harm score for each offender, and the average harm per offence that the offenders inflicted.

The most significant and potent finding within this research is the identification of a 'Power Few', whereby 363 offenders, a third of the cohort, were responsible for 80% of the harm inflicted. This was examined through the lens of average harm per offence. By choosing this metric, it is more feasible to capture RSOs earlier in their career. The most concerning finding of the research was that of these 363, 250 were at liberty, and the vast majority were currently graded as Low or Medium risk, with 123 categorised as Low meaning they are subject to the minimum of an annual visit.

Clearly, of these 'Power Few' the likelihood of some of them re-offending will genuinely be low. But should any of them offend again, the harm they will cause will be severe. In the meantime, Norfolk Constabulary has been visiting people with solely exposure or non-contact offences on a monthly basis and would continue to be governed to do so by using the risk tools which focus so heavily on the likelihood of re-offending. College of Policing Guidance decrees the minimum level of visits required for each category of RSO and which force will counter the guidance? Ultimately, this research poses a challenging question. Is the current approach appropriate?

The conclusion of this research is very strongly that this approach is not appropriate. The College of Policing is endorsing a flawed approach to sex offender management that leaves citizens in Norfolk and elsewhere at greater risk than if a harm-based assessment tool were applied. However, the conclusion is also that using harm as the sole metric to govern resource would be as inappropriate. What is needed is a combination of a likelihood predictor multiplied by the harm impact to produce the new risk banding. Even at the crude level of a 4 by 4 matrix where likelihood bandings from 1 to 4 could be multiplied by harm bandings of 1 to 4, a very high likelihood exposure offender would perhaps score  $4 \times 1 = 4$ . A medium likelihood rapist would score  $2 \times 4 = 8$ . And which member of public would feel it wrong that the exposure offender receive fewer visits?

Alas, in the time constraints of this research, and lacking the additional rich data which accurate dates of offending would have provided, this thesis has not achieved the development of such a tool, but in terms of further research, this is heartily recommended as a topic for a future researcher to develop. This is a highly harmful area, and any progress in 'targeting' the more harmful can only be a good thing. In the meantime, the conclusion of this thesis which will be recommended within Norfolk Constabulary with immediate effect, is a 'Power Few' strategy. That is to say, having identified the 250 most harmful offenders at liberty, each will be re-assessed. In the absence of an accurate likelihood tool, it seems extremely important that the PPU 'targets' these 250 and do their utmost to prevent them offending again.

## List of References

Ackerman, A. R., Harris, A. J., Levenson, J. S., & Zgoba, K. (2011). Who are the people in your neighborhood? A descriptive analysis of individuals on public sex offender registries. *International Journal of Psychiatry and Law, 34*, 149-159.

Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19–52. Andrews, D. A., & Bonta, J. (1994). The psychology of criminal conduct. Cincinnati, OH: Anderson.

Barbaree, H. E., Langton, C., & Peacock, E. J. (2006). Different actuarial risk measures produce different risk rankings for sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 18,* 423–440.

Barnett, G. D., Wakeling, H. C., & Howard, P. D. (2010). An examination of the predictive validity of the Risk Matrix 2000 in England and Wales. *Sexual Abuse: A Journal of Research and Treatment, 22,* 443–470. doi:10.1177/1079063210384274

Batty, D (18/1/06) Guardian Article: Q&A: The Sex Offenders Register, accessed at: http://www.guardian.co.uk/society/2006/jan/18/childrensservices.politics1/print, (accessed 16 July 2015)

Bonta, J., & Hanson, R. K. (1995). Violent recidivism of men released from prison. Paper presented at the 103rd annual convention of the American Psychological Association: New York.

Bonta, J. (1996). Risk-needs assessment and treatment. In A. T. Harland (Ed.), *Choosing correctional options that work: Defining the demand and evaluating the supply* (pp. 18–32). Thousand Oaks, CA: Sage.

Bonta, J., Harman, W. G., Hann, R. G., & Cormier, R. B. (1996). The prediction of recidivism among federally sentenced offenders: A re-validation of the SIR scale. Canadian Journal of Criminology, 38, 61-79.

Cohen, Mark A. (1988), Pain, suffering, and jury awards: a study of the cost of crime to victims. Law and Society Review, 22537-555.

Cohen, Mark A., Ted R. Miller and Shelli B. Rossman. (1994) The Costs and Consequences of Violent Behavior in the United States. Understanding and Preventing Violence: Consequences and Control of Violence, Vol. 4, Albert J. Reiss, Jr. and Jeffrey A. Roth (eds). National Research Council. Washington, D.C.:National Academy Press.

Cohen, M., Rust, R., Steen, S., and Tidd, S. (2004), Willingness-to-Pay for Crime Control Programs. *Criminology*, 42/1: 89-109.

College of Policing. (2015) Managing sexual offenders and violent offenders: Guidance on Protecting the Public: Managing Sexual Offenders and Violent Offenders 2010, <u>http://library.college.police.uk/docs/acpo/Guidance-Protecting-the-</u> <u>Public-2010.pdf</u> (accessed 21 April 2015)

Craig, L. A., Beech, A. & Browne, K. D. (2006). Cross-validation of the risk matrix 2000 sexual and violent scales. *Journal of Interpersonal Violence*, 21, 612-633.

Epperson, D.L., Kaul, J.D., & Hesselton, D. (1998). Final report of the development of the Minnesota Sex Offender Screening Tool –Revised (MnSOST-R). Presentation at the 17<sup>th</sup> Annual Research and Treatment Conference of the Association for the Treatment of Sexual Abusers, Vancouver, British Columbia, Canada.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! Criminology, 34, 575-607.

Grubin, D. (1998). *Sex offending against children: Understanding the risk.* Police Research Series Paper 99. London: Home Office.

Grubin, D. (2008). A Large-Scale Evaluation of Risk Matrix 2000 in Scotland. Sexual Abuse- a Journal of Research and Treatment, 23, 419-433.

Hanson, R. K., & Bussière, M. T. (1996). Predictors of sexual offender recidivism: A meta-analysis. User Report No. 1996-04. Ottawa: Department of the Solicitor General of Canada.

Hanson, R. K. (1997) *The Development of a Brief Actuarial Risk Scale for Sexual Offense Recidivism. (User Report No. 1997-04).* Ottawa: Department of the Solicitor General of Canada. <u>http://ww2.ps-sp.gc.ca/publications/corrections/199704\_e.pdf</u>

Hanson, R. K. & Bussière, M. T. (1998) Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology, 66*,348-362

Hanson, R.K. & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior, 24*, 119-136.

Hanson, R. K., Morton, K. E., & Harris, A. J. R. (2003). Sexual offender recidivism risk: What we know and what we need to know. *Annals of the New York Academy of Sciences*, *989*, 154-166.

Hanson, R. K. & Morton-Bourgon, K. E. (2005) The Characteristics of Persistent Sexual Offenders: A Meta-Analysis of Recidivism Studies Journal of consulting and clinical psychology, 73, 1154 - 1163

Hanson, R. K. & Morton-Bourgon, K. E. (2007). The Accuracy of Recidivism Risk Assessments for Sexual Offenders: A Meta-Analysis
Hanson, R. K. & Morton-Bourgon, K. E. (2009). The Accuracy of Recidivism Risk Assessments for Sexual Offenders: A Meta-Analysis of 118 Prediction Studies. *Psychological Assessment*, 21, 1-21.

Harris, A.J., Levenson, J.S. & Ackerman, A.R. (2012). Registered Sex Offenders in the United States: Behind the numbers. *Crime and Delinquency.* Doi: 10.11.77/0011128712443179

Home Office/Scottish Executive (2001) Consultation Paper on the Review of Part 1 of the Sex Offenders Act 1997 July, London: Home Office.

Jacoby, J. & Cullen, F. (1999). 'The Structure of Punishment Norms: Applying the Rossi-Berk Model', *Journal of Criminal Law and Criminology*, 89: 245-312

Kingston, D. A., Yates, P. M., Firestone, P., Babchishin, K. & Bradford, J. M. (2008). Long-Term Predictive Validity of the Risk Matrix 2000 A Comparison With the Static-99 and the Sex Offender Risk Appraisal Guide. *Sexual Abuse-a Journal of Research and Treatment*, 20, 466-484.

Looman, J. (2006). Comparison of two risk assessment instruments for sexual offenders. Sexual Abuse: A Journal of Research and Treatment, 18, 193-206.

Lussier, P. (2005). The criminal activity of sexual offenders in adulthood: Revisiting the specialization debate. *Sexual Abuse: A Journal of Research and Treatment*, *17*, 269-292.

Lussier, P., Deslauriers-Varin, N., and Ratel, T. (2010) A Descriptive Profile of High-Risk Sex Offenders Under Intensive Supervision in the Province of British Columbia, Canada. *International Journal of Offender Therapy and Comparative Criminology*, 54: 1, pp. 71-91.

Mann, R. E., Hanson, R. K., & Thornton, D. (2010). Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. Sexual Abuse: A Journal of Research and Treatment, 22, 191-217. doi:10.1177/1079063210366039

McNaughton Nicholls, C. and Webster, S. (2014). Sex Offender management and dynamic risk: Pilot evaluation of the Active Risk Management System (ARMS), *Ministry of Justice Analytical Series*.

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/30815 9/sex-offender-management-and-dynamic-risk.pdf (accessed 21 April 2015).

Miller, Ted R., Mark A. Cohen and Brian Wiersema (1996) Victim Costs and Consequences: A New Look. National Institute of Justice Research Report, NCJ-155282 (February).

Motiuk, L. L., & Vuong, B. (2005). *Homicide, sex, robbery and drug offenders in federal corrections: An end of 2004 review.* Ottawa, Ontario, Canada: Research Branch Correctional Service of Canada.

Nagin, Daniel S. (2001a) Costs and benefits of crime prevention. Crime and Justice 28. Chicago: University of Chicago Press.

Nagin, Daniel S. (2001b) Measuring Economic Benefits of Developmental Prevention Programs. In Welsh, Farrington and Sherman Costs and Benefits of Preventing Crime. Boulder, Colo.: Westview Press.

Norfolk Insight Census Data. (2011) Ethnic Groups – source ONS <u>http://www.norfolkinsight.org.uk/dataviews/tabular?viewId=170&geoId=15&subsetId</u>= (Accessed 30 October 2015)

Nunes, K. L., Firestone, P., Bradford, J. M., Greenberg, D. M., & Broom, I. (2002). A comparison of modified versions of the Static-99 and the Sex Offender Risk Appraisal Guide. *Sexual Abuse: A Journal of Research and Treatment*, *14*, 249-265.

Quinsey, V.L., Harris, G.T., Rice, M.E., & Cormier, C.A. (1998). *Violent offenders: Appraising and managing risk.* Washing, DC: American Psychological Association.

Sentencing Council (2013). Sexual Offences Definitive Guideline. Crown. Retrieved from <u>http://www.sentencingcouncil.org.uk/wp-</u> <u>content/uploads/Final\_Sexual\_Offences\_Definitive\_Guideline\_content\_web1.pdf</u> (accessed 21 April 2015)

Sherman, L. W. (2007). The power few: experimental criminology and the reduction of harm. *Journal of Experimental Criminology*, 3(4), 299-321.

Sherman, L.W. (2013) 'The rise of evidence-based policing: targeting, testing and tracking' in M. Tonry (ed.) *Crime and Justice in America, 1975-2025*, Crime and Justice, Vol. 42, Chicago: University of Chicago Press, pp. 377-452.

Thornton, D., Mann, R., Webster, S., Blud, L., Travers, R., Friendship, C.,

& Erikson, M. (2003). Distinguishing and combining risks for sexual and violent recidivism. In R. A. Prentky, E. S. Janus, & M. C. Seto (Eds.), *Annals of the New York Academy of Sciences: Vol. 989. Sexually coercive behavior: Understanding and management* (pp. 225–235). New York: New York Academy of Sciences.

Thornton, D. (2007). *Scoring guide for Risk Matrix 2000.9/SVC*. Retrieved from <a href="http://www.cfcp.bham.ac.uk/Extras/SCORING%20GUIDE%20FOR%20RISK%20MA">http://www.cfcp.bham.ac.uk/Extras/SCORING%20GUIDE%20FOR%20RISK%20MA</a> TRIX%202000.9-%20SVC%20-%20(ver.%20Feb%202007).pdf (accessed 21 April 2015)

Tully, R. J., Chou, S. & Browne, K. D. (2013). A systematic review on the effectiveness of sex offender risk assessment tools in predicting sexual recidivism of

adult male sex offenders. Clinical Psychology Review, 33, 287-316.

Tully, R. J. & Browne, K. D. (2014). Appraising the Risk Matrix 2000 Static Sex Offender Risk Assessment Tool. *International Journal of Offender Therapy and Comparative Criminology*, 59, 211-224.

Wollert, R. (2006). Low base rates limit expert certainty when current actuarials are used to identify sexually violent predators: An application of Bayes's theorem. *Psychology, Public Policy, and Law, 12,* 56-85.

# Appendices

## **Appendix A – Data Processing Agreement**

# DATA PROCESSING CONTRACT

The definitions of key terms used in this contract are contained in Annex A.

This is an agreement that sets out the terms and conditions under which personal data held by the specified 'data controller' will be processed by the specified 'data processor'. This contract is entered into with the purpose of ensuring compliance with the Data Protection Act 1998. Any processing of data must comply with the provisions of this Act.

## The Parties

This Contract is between the Chief Constable of Norfolk Constabulary (the 'Data Controller') and Ralph Jackman (the 'Data Processor'). Other parties to the research should also be shown at this point.

## 1. Purpose

1.1. The purpose of the processing is to facilitate research by the Data Processor to complete his dissertation for a Masters in Applied Criminology and Police Management at Cambridge University, which has been funded by Norfolk Constabulary. The dissertation is to provide a descriptive analysis of the characteristics and criminal careers of imprisoned serious sex offenders. A copy of the dissertation will be provided to Norfolk Constabulary.

## 2. Information Provision

- 2.1 The data controller agrees to provide the data processor with the relevant data required for the Purpose.
- 2.2 In instances where the data processing required for the research cannot be conducted without access to 'personal data' the data processors agree to abide by the following conditions as required by the Data Protection Act 1998 s.33:
- 2.3 Personal data will not be processed to support measures or decisions with respect to particular individuals.
- 2.4 Personal data will not be processed in such a way that substantial damage or substantial distress is, or is likely to be, caused to any data subject.
- 2.5 The information to be provided is as follows:

Mr Jackman will access, active VISOR records to review nominal data, such as age, gender, nationality, sentence length and static risk level, and PNC to enable him to review the previous convictions of imprisoned serious sex offenders.

Mr Jackman will input information taken from these systems onto a spread sheet to enable him to analysis the full characteristics and criminal careers of these serious sex offenders. All information taken from police systems and the spread sheet will remain at all times on Norfolk Constabulary systems and premises.

Mr Jackman will not include any information taken from police systems or the spread sheet in his dissertation, and all data used within his dissertation will be anonymised so as not to include any personal data.

Ownership of the data will remain with the Data Controller at all times.

## 3. Use, Disclosure and Publication

- 3.1 The Research Data will be used solely for the Purpose.
- 3.2 The data shall not at any time be copied, broadcast or disseminated to any other third parties, except in accordance with this Contract.
- 3.3 Subject to 3.4 below, the data will not be matched with any other Personal Data otherwise obtained from the Data Controller, or any other source, except in accordance with this Contract or unless specifically authorised by the Data Controller.
- 3.4 It is acknowledged that data matching will occur to the extent that sets of Aggregated Data may be applied to sets of other Aggregated Data obtained from Cambridge University for the Purpose.
- 3.5 The data will not be disclosed to any third party without the written authority of the Data Controller.
- 3.6 The only exceptions to clauses 3.2. and 3.5. above will be where any person is required to give evidence in legal proceedings.
- 3.7 Access to the data will be restricted to only those employees of the Data Processor that are directly related to the Purpose and have a need to access the data in the course of their employment.
- 3.8 No steps will be taken to contact any party identified in the data unless an individual has given prior consent to this use and disclosure.
- 3.9 The data will be depersonalised so that no personal identifiers will be present in any results or publications, or will be retained by the data processor beyond the period of the research. Personal data will *only* be processed with a view to producing depersonalised information/results.

- 3.10 All personal data held by the data processor including any archive or back-up copies, will either be returned to the data controller or destroyed at a date to be agreed by the relevant parties. After this date the data processor must provide a written declaration confirming that the data has been destroyed/returned.
- 3.11 The data processor will process data purely for the Purpose and will not retain or process data for any other purposes.

## 4. Data Protection and Human Rights

- 4.1 The use and disclosure of any Personal Data shall be in accordance with the obligations imposed upon the parties to this Contract by the Data Protection Act 1998 and the Human Rights Act 1998 which obligations will be reflected in all relevant codes of practice or data protection operating rules adopted by the parties to this Contract.
- 4.2 The parties agree and declare that the Research Data will be used and processed with regard to the rights and freedoms enshrined within the European Convention on Human Rights.
- 4.3 On reasonable notice periodic checks may be conducted by the Force Data Protection Officer to confirm compliance with this Contract.

## 5. Confidentiality

- 5.1 The parties shall not use or divulge or communicate to any person (other than those whose need to know the same for the Purpose, or without the prior written authority of the Data Controller) any Personal Data obtained from the Data Controller, which it shall treat as private and confidential and safeguard accordingly.
- 5.2 The Data Processor shall ensure that any individuals involved in the Purpose and to whom Research Data is disclosed under this Contract are aware of and comply with this Contract and sign in acknowledgement the undertaking of confidentiality provided at **Annex B**, which will be returned to the Data Controller.
- 5.3 For the avoidance of doubt, the obligations of confidentiality imposed on the parties by this Contract shall continue in full force and effect after the expiry or termination of this Contract.
- 5.4 Respect for the privacy of individuals should be guaranteed in any research project requiring the use of personal data.
- 5.5 No steps to attempt to identify any person from the data or aggregate data will be made by any data matching or other exercise.

## 6. Security

- 6.1 The Data Processor recognises that the Data Controllers have obligations relating to the security of Data under their control under the Data Protection Act and the ACPO Information Community Security Policy. The Data Processor will continue to apply those relevant obligations as detailed in **Annex C** on behalf of the Data Controllers during the term of this agreement.
- 6.2 The Data Controller may wish to undertake suitability checks on any persons having access to police premises and/or the data and further reserves the right to issue instructions that particular individuals shall not be able to participate in the research project without reasons being given for this decision. The Data Processor will ensure that each person who will participate in the research projects understands this and provides their written consent as necessary.
- 6.3 Any security incidents, breaches and newly identified vulnerabilities must be reported to the Data Controller at the earliest opportunity.

## 7. Indemnity

7.1 In consideration of the provision of the Research Data for the Purpose the Data Processor undertakes to indemnify any of the persons or any authority referred to in paragraph 7.2 below against any liability, which may be incurred by such person or authority as a result of the Data Processor's breach of this Contract. The Data Processor undertakes and agrees to indemnify the Data Controller in the terms set out in **Annex D**. Where the Data Controller becomes aware of any action, claim or demand, the subject matter of which relates to any action or omission of the Data Processor to which the indemnity at **Annex D** applies, the Data Controller shall liaise with the Data Processor as to the optimum way of responding to the action, claim or demand and the Data Processor shall give the Data Controller all reasonable assistance in dealing with such matters.

Provided that this indemnity shall not apply:

where the liability arises from information supplied which is shown to have been incomplete or incorrect, unless the person or authority claiming the benefit of this indemnity establishes that the error did not result from any wilful wrongdoing or negligence on his part or on the part of any other person or authority referred to in paragraph 7.2 below;

7.2. Persons who may claim the benefit of this indemnity are as follows:

any police authority except that for the Metropolitan Police District

any Chief Officer of Police

any serving or former member of the police force

any serving or former civilian employee of a police authority

the Commissioner of Police of the Metropolis

and in this paragraph the expressions "police authority", "chief officer of police" and "police force" have the same meaning as in Section 101 of the Police Act 1996.

## 8. Disputes

- 8.1 In the event of any dispute or difference arising between the parties out of this Contract, the parties will meet in an effort to resolve the dispute or difference in good faith.
- 8.2 This Contract is subject to English Law and the jurisdiction of the English Courts. The parties will, with the help of a Centre for Dispute resolution, seek to resolve disputes between them by alternative dispute resolution. If the parties fail to agree within 56 days of the initiation of the alternative dispute resolution procedure, then the parties shall be at liberty to commence litigation.

## 9. Termination and Variation

- 9.1 This Contract will terminate at the completion of the research project.
- 9.2 The Data Controller may at any time by notice in writing terminate this Contract forthwith if the Data Processor is in breach of any material obligation under this Contract.
- 9.3 In the event that any party wishes to exit from this Contract, that party shall serve a notice, in writing, to the offices of the other party of a date not less than 30 days from the date of the said notice, on which the party proposed to exit the Contract.
- 9.4 In the event that either party wishes to vary any term of this Contract that party will give notice, in writing to the offices of the other party, explaining the effect of and reason for the proposed variation. The parties shall within 30 days of receipt of such a notice meet to discuss the variation.

9.5 As the Data Controller of the personal data this Contract covers, the Data Controller will have the final decision on any proposed variation to this Contract.

## **10.** Relationship between the Parties

10.1 The Data Processor shall give reasonable assistance as is necessary to the Data Controller in order to enable him to:

Comply with request for subject access from the data subjects;

Respond to Information Notices served upon him by the Information Commissioner;

Respond to complaints from data subjects;

Investigate any breach or alleged breach of the Act.

in accordance with his statutory obligations under the Data Protection Act 1998

- 10.2 The receipt by the Data Processor of any Subject Access request to the Research Data covered by this Contract must be reported at the earliest opportunity to the Data Protection Decision Officer representing the Data Controller, who will arrange the relevant response to that request.
- 10.3 This Contract also acts in fulfilment of part of the responsibilities of the Data Controller as required by paragraphs 11 and 12 of Schedule 1, Part II of the Data Protection Act 1998.

## Declaration

I agree to abide by the terms and conditions of this agreement. In doing so, I am aware of and understand the relevant provisions of the 1998 Data Protection Act, and I agree to abide by these provisions.

Signature of the data controller

Date

Signature of the data processor

Date

Appendix – Terms and Definitions

The principal terms used in this contract are based upon the definitions laid out in section 1(1) of the 1998 Data Protection Act.

'data controller' means, a person who (either alone or jointly or in common with other persons) determines the purposes for which and the manner in which any personal data are, or are to be processed.

'data processor' in relation to personal data, means any person (other than an employee of the data controller) who processes the data on behalf of the data controller.

'personal data' means data which relate to a living individual who can be identified:

from those data, or

from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller,

and includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of the individual

**The Seventh Data Principle** – 'Appropriate technical and organisation measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data'.

**Aggregated Data** is defined as data grouped together to the extent that no living individual can be identified from that aggregated data or any other data in the possession of or likely to come into the possession of any person obtaining the aggregated data.

#### NORFOLK CONSTABULARY

Undertaking of Confidentiality

I [ ] as a researcher involved in the research as defined in the Contract between the Norfolk Constabulary and Mr Ralph Jackman to which this Undertaking is appended, hereby acknowledge the responsibilities arising from this Contract.

I understand that my part in fulfilling the Purpose means that I may have access to the data and that such access shall include, reading or viewing of information held on computer or displayed by some other electronic means, or

reading or viewing manually held information in written, printed or photographic form.

I undertake that; -

I shall not communicate to nor discuss with any other person the contents of the data except to those persons authorised to work on the research project.

I shall not retain, extract, copy or in any way use any data to which I have been afforded access during the course of my duties for any other purpose.

I will only operate computer applications or manual systems that I have been trained to use. This training will include the requirements of the Data Protection Act 1998 which prescribes the way in which personal data may be obtained, stored and processed.

I will comply with the appropriate physical and system security procedures made known to me.

I will act only under instruction from those relevant officials in the processing of any Research Data.

I understand that the data is subject to the provisions of the Data Protection Act 1998 and that by knowingly or recklessly acting outside the scope of this Contract I may incur criminal and/or civil liabilities. I undertake to seek advice and guidance from relevant officials of the Data Controller in the event that I have any doubts or concerns about my responsibilities or the authorised use of the data and/or Aggregate Data defined in the Agreement

I have read, understood and accept the above.

Name.....

Signed.....

Date.....

## **Constabulary Information Security Policy Statement**

All Chief Constables are committed to compliance with the Community Security Policy, and they and Partner Organisations are expected to ensure that all data and information is handled in line with the HMG Security Policy Framework, specifically meeting the following Mandatory Requirement:

Departments and Agencies must have an information security policy setting out how they and any delivery partners and suppliers will protect any information assets they hold, store or process (including electronic and paper formats and online services) to prevent unauthorised access, disclosure or loss. The policies and procedures must be regularly reviewed to ensure currency.'

## <u>Scope</u>

These Information Security Requirements and Objectives apply to the following:

• Roles & Responsibilities

All persons or parties conducting work for either Signatory regardless of any form of employment, including contractors providing services, agency workers and trainees on vocational or work experience.

- Data & Information
  - Whether stored, copied, duplicated or transmitted, all 'soft' (electronic, digital and virtual) data, information and communications on servers, networks, connectivity, ICT kit such as PCs, workstations, laptops, and authorised multimedia devices including USBs, mobile phones, tapes and CDs.
  - Also 'hard' information printed or written on paper or other medium such as whiteboards and flipcharts, and transmitted by any method whatsoever, such as fax or scanner.

- Additional safeguards should be considered, specified and documented according to the sensitivity and classification of the data, information, and/or circumstances of the Agreement, for example observing operational security, such as precautions against eavesdropping.
- Data: The Data Protection Act & Information Commissioner's Office
  - Where Signatories process personal data defined by the Act, they agree to apply security measures, commensurate with principle 7 of the Data Protection Act 1998, by applying: "appropriate technical and organisation measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data".
  - These Information Security Requirements and Objectives should evidence this principle.

## Information Security Requirements & Objectives

To that end, Signatories to this agreement should ensure, document and be able to evidence, that they have in place common technical and organisational security arrangements, evidencing the following appropriate, proportionate and reasonable Information Security Requirements and Objectives:

- Information Security risk assessments to establish, evaluate and accept risks, and put in place appropriate controls to manage them.
- Information Security Policies, Guidelines, Processes, Controls and Practices in place to protect, and ensure the confidentiality, integrity and availability of data and information and systems under their control.
- An Information Security Review process at planned intervals, so that should significant changes occur this will ensure their continued suitability, adequacy, and effectiveness; i.e for technological, legal, contractual and regulatory requirements and organisational changes.

Specifically, they should address the Information Security Requirements and Objectives below.

- Information Security Policy A documented Information Security Policy should provide governance, management direction and support for information security according to relevant business and organisational requirements, contractual obligations, laws, statutes, regulations and best practices.
- Organisation of Information Security Internal Organisation & External Parties to manage information security within the organisation, and maintain the security of information and information processing facilities that are accessed, processed, communicated to, or managed by external parties.
- Asset Management Responsibility for Assets & Information Classification to achieve and maintain appropriate protection of organisational assets, and ensure information receives an appropriate level of protection.
- Human Resources Security Prior to, During & After Employment. Training & Awareness to ensure that employees, contractors, third parties, and other users understand their responsibilities, and are suitable for the roles they are considered; reducing the risk of theft, fraud or misuse of facilities; and are aware of information security threats and concerns, their responsibilities and liabilities, and are equipped to support security policy in their normal work, reducing the risk of error; and to ensure that all users exit or change employment in an orderly manner. Information security programmes should be available and imparted to all relevant users.
- Physical & Environmental Security Secure areas & Equipment Security to prevent unauthorized physical access, damage and interference to the organisation's premises and information; and prevent loss, damage, theft or compromise of assets and interruption to the organisation's activities.
- Communications & Operations Management Operational Procedures, Responsibilities & Third Party Service Delivery Management to ensure the correct and secure operation of information processing facilities; and implement and maintain the appropriate level of information security and service delivery in line with third party service delivery agreements;
- System Planning Acceptance & Protection against malicious & mobile code to minimize the risk of systems failures; and protect the integrity of software and information;
- Back-up & Network Security Management To maintain the integrity and availability of information and information processing facilities, and ensure the

protection of information in networks and the protection of the supporting infrastructure.

- Media Handling Exchange of Information & Monitoring to prevent unauthorized disclosure, modification, removal or destruction of assets, and interruption to business activities; maintain the security of information and software exchange internally and with any external entity; and detect unauthorized information processing activities.
- Electronic Commerce Services To ensure their security, and secure use.
- Access Control
  - Business Requirement for Access Control & User Access Management to control access to information, ensuring authorized user access, preventing unauthorized access to information systems.
  - User Responsibilities & Network Access Control to prevent unauthorized access, compromise, theft of information and information processing facilities; and access to networked services.
  - Operating System, Access, Application, & Information Access Control to prevent unauthorized access to operating systems; and information held in application systems.
  - Mobile Computing & Teleworking to ensure information security when using mobile computing and teleworking facilities.

## Information Systems Acquisition, Development & Maintenance

- Security Requirements of Information Systems & Correct Processing in Applications to ensure that security is an integral part of information systems, and prevent errors, loss, unauthorized modification or misuse of information in applications.
- Cryptographic Controls & Security of System Files to protect the confidentiality, authenticity or integrity of information by cryptographic means, and ensure the security of system files.
- Security in Development, Support Processes & Technical Vulnerability Management to maintain the security of application system software and information, and reduce risks resulting from exploitation of published technical vulnerabilities.

- Information Security Incident & Breach Management To report information security threats, events and weaknesses ensuring those associated with information systems are communicated to allow timely corrective action; and manage incidents and improvements, ensuring a consistent and effective approach is applied to information security incidents.
- Business Continuity Management To counteract interruptions to business activities and to protect critical business processes from the effects of major failures of information systems or disasters and to ensure their timely resumption.
- Compliance with Legal Requirements To avoid breaches of any law, statutory, regulatory or contractual obligations, and of any security requirements, and that they are met wherever applicable; and to ensure compliance of systems with organisational security policies and standards, and to maximize the effectiveness of and to minimize interference to/from the information systems audit process.

#### INDEMNITY

- 1. In signing this contract each party agrees to the following indemnity:
- 2. In consideration of a party to this contract providing information in accordance with the terms of this contract, the recipient hereby agrees to indemnify the provider against any liability, which may be incurred by the provider as a result of:
  - a. the provision of the information; or
  - b. The recipient's disclosure of the information to any third party unless the provider gave permission for such a disclosure; or
  - c. Any breach by the recipient of this agreement.
- 3. This indemnity shall not apply:
  - (a) where the liability arises from information supplied which is shown to have been incomplete or incorrect, unless the provider establishes that the error did not result from any wilful wrongdoing or negligence on its part.

# Appendix B – Crime Harm Index Scoring

 Table 23 – Crime Harm Scores per offence

Sexual Offence Type	CHI Cambridge
Rape of a child under 13 s.5 2003	2920
Sexual activity with a person with a mental disorder impeding choice (Penetration) s30a 2003	2920
Rape s.1 1956	1825
Rape s.1 2003	1825
Buggery s.12 1956	1825
Intercourse with Girl U13 s.5 1956	1825
Intercourse with girl under 16 s.6 1956	1825
Gross indecency with child (Girl) Under 16 s.1 1960	1460
Assault of a child under 13 by penetration s.6 2003	1460
Causing/Inciting/Controlling child prostitution or pornography s.48 2003	1095
Assault by penetration s.2 2003	730
Causing or inciting a child under 13 to engage in sexual activity s.8 2003	730
Committing an offence with intent to commit a sexual offence s.62 2003	730
Causing a person to engage in sexual activity without consent (penetration) s 4a 2003	730
Abduction of Girl under 16 s 20 1956	730
Making Photos s 1 1978	547 5
Taking Photos s. 1 1978	547.5
Meeting a child following sexual grooming etc s. 15 2003	547.5
Indecent photographs of persons aged 16 or 17 (Production) s. 45c 2003	547.5
Permitting use of premises for unlawful sexual intercourse s 26 1956	365
Indecent assault on female s 14 1956	182 5
Indecent assault on male s 15 1956	182.5
Sexual assault of a child under 13 s 7 2003	182.5
Indecency s 13 1956	182.5
Sexual activity with a person with a mental disorder impeding choice (Non Penetration) s 30b	102.5
2003	182 5
Indecent assault on a woman's 14 1956	182.5
Trafficking within the UK for sexual exploitation s. 58 2003	182.5
Procuring man to commit homosexual act s 4 1967	182.5
Extreme Pornography CIA s 63 2008	180
Distributing indecent photo s 1 1978	91.25
Indecent photographs of persons aged 16 or 17 (Distribution) s 45b 2003	91.25
Breach of SOPO s 113 2003	60
Possessing Photograph s. 160 1988	15
Sexual Assault s 3 2003	15
Indecent photographs of persons aged 16 or 17 (Possession) s.45a 2003	15
Causing a person to engage in sexual activity without consent (Non-penetration) s.4b 2003	15
Sexual activity with a child s.9 2003	10
Exposure s.66 2003	10
Fail Notification s.91 2003	10
Sexual Activity with a child family member s.25 2003	10
Causing or inciting a child to engage in sexual activity s.10 2003	10
Incest s.11 1956	10
Voyeurism s.67 2003	10
Engaging in sexual activity in the presence of a child s.11 2003	10
Causing a child to watch sexual act s.12 2003	10
Sex with an adult relative: penetration s.64 2003	10
Inciting a child family member to engage in sexual activity s.26 2003	10
Arranging or facilitating the commission of a child sex offence s.14 2003	10
Abuse of position of trust: Sexual activity with a child s.16 2003	10
Abuse of a position of trust: causing or inciting a child to engage in sexual activity s.17 2003	10
Immoral earning s. 30 1956	10
Controlling prostitution for gain s.53 2003	10
Care workers: sexual activity with a person with a mental disorder s.38 2003	10
Intercourse with an animal s.69 2003	5
Sexual activity in a public lavatory s.71 2003	1.1
Improper use of public electronic communication network comms act s.127 2003	1.1
Persistent soliciting s.2 1985	0.7

#### **Appendix C – Process Decisions when applying the Cambridge Crime Harm Index**

For those not undertaking a similar data trawl, the following section may seem a little difficult to follow, but to aid consistency of replication, or an ability to challenge thoroughly the methodology is possible, it was felt appropriate to list the decisions taken.

Some offences, for example exposure, were prosecuted under Common Law. For the purposes of this thesis, these occasions were captured as if they were the offence of Exposure, Section 66 of the SOA 2003, and scored accordingly.

Where a prison sentence was given as well as fines and community orders, only the prison sentence was scored.

On the very few occasions where a hospital order, rather than a prison sentence, was given, these were excluded from the analysis as it was deemed impossible to attribute an appropriate harm score.

Where a life sentence was given, this was taken to be equal to a 25 year sentence.

If the offence was detailed as 'no separate penalty', this would still score the allotted harm under the Cambridge CHI method.

It was determined that the content of the images was a far greater influence than the distinction between 'Taking' and 'Making' a photograph under the Protection of Children Act 1978. These offences were therefore given the same score.

Where the offences were prosecuted in Northern Ireland, it was possible to allocate to the most appropriate act within England and score accordingly.

127

Concerning 'Committing an offence with intent to commit a sexual offence', Section 62 of the SOA 2003, two years' worth of harm was applied, as this is the minimum boost to the original offence.

When offenders are under the age of 18, the sentencing guideline is to halve the customary sentence. For some of the analysis, it was therefore necessary to keep this fact in mind, potentially excluding some of the offences so as not to adversely affect the results.

With regards to historic offences, highly prevalent in the area of sexual offending, only maximum sentences are provided in the Sentencing Guidelines (2013). Since the Cambridge Crime Harm Index relies on starting points, it was necessary to apply the score from the most similar offence type within the SOA 2003.

# Appendix D – Sexual Offence Groupings

Table 24 – Table demonstrating which sexual offences were grouped into victim categories for further analysis

Offence Group	Offence Category	Sexual Offence Type
Adult	Rape	Rape s.1 2003
		Rape s.1 1956
	Penetration	Buggery s.12 1956
		Assault by penetration s.2 2003
		Incest s.11 1956
		Sex with an adult relative: penetration s.64 2003
		Causing a person to engage in sexual activity without consent (penetration) s.4a 2003
		Intercourse with an animal s.69 2003
	Non-Penetration	Indecent assault on female s 14 1956
		Indecent assault on male s. 15 1956
		Sexual Assault s 3 2003
		Exposure s 66 2003
		Fail Notification s 91 2003
		Breach of SOPO s 113 2003
		Voveurism s 67 2003
		Indecency s 13 1956
		Committing an offence with intent to commit a sexual offence s 62 2003
		Improper use of public electronic communication network comms act s 127 2003
		Caucing a parcon to apgage in cavual activity without concent (Non-perpetration) of the 2002
		Causing a person to engage in sexual activity without consent (Non-penetration) 5.46 2005
		Controlling prostitution for gain c E2 2002
		Controlling prostitution for gain 5.55 2005
		Assault with Intent to commit buggery
		Parmitting within the UK for sexual exploration 5.58 2003
		Permitting use of premises for unlawful sexual intercourse 5.26 1956
		Procuring man to commit nomosexual act 5.4 1967
		Indecent assault on a woman S.14 1956
		Sexual activity in a public lavatory 5.71 2003
Child	Dama	Immoral earning S. 30 1956
China	Rape	Accoult of a child under 12 by popotration c 6 2002
	Penetration	Assault of a child under 15 by perfectation 5.6 2005
		Intercourse with girl under 16 c 6 1956
	Non Ponstration	Soxual activity with a child c 0 2002
	Non-Fenetiation	Gross indecency with child (Girl) Under 16 s 1 1960
		Sexual ascault of a child under 13 s 7 2003
		Sexual Activity with a child family member c 25 2002
		10 Causing or inciting a child to engage in sexual activity
		Causing or inciting a child to engage in sexual activity s 10 2003
		Meeting a child following sexual grooming etc s 15 2003
		Engaging in sexual activity in the presence of a child s 11 2003
		Causing a child to watch social act s 12 2002
		Inciting a child family member to engage in sexual activity s 26 2003
		Arranging or facilitating the commission of a child sex offence s 14 2003
		Ahuse of a position of trust: causing or inciting a child to engage in sevual activity s 17 2003
		Abduction of Girl under 16 s 20 1956
		Abuse of position of trust: Sexual activity with a child s 16 2003
		Causing/Inciting/Controlling child prostitution or nornography s 48 2003
Vulnerable Adult	Penetration	Sexual activity with a person with a mental disorder impeding choice (Penetration) s30a 2003
	Non Depatration	Convert activity with a person with a mental disorder impeding choice (Nen Departation) c 200 2002
	Non-Penetration	Sexual activity with a person with a mental disorder impeding choice (Non Penetration) 5.300 2003
Image /Dhote	Imaga /Dhata affancas	Cale workers, sexual activity with a person with a mental disorder 5.58 2005
mage/Photo	inage/Prioto offences	Ivianily Filolos S.I 1370 Descessing Destagraph 5 160 1009
		russessing rilulugidpii 5.100 1900
		Extreme Demography CIA c 62 2009
		EXTERNET POIND GAPTING A STORE AND A STORE
		Taking Distance 1 1079
		IdKilly Millos 5.1 1978
		Indecent photographs of persons aged 16 or 17 (Production) \$.450 2003
		indecent photographs of persons aged to 01 17 (Distribution) 5.450 2003

#### **Appendix E – Analytical Procedures**

This Appendix documents the analytical procedures carried out during this thesis. It is structured as per the research questions.

## **Demographics**

The mean age was calculated, both as at the snapshot date (4<sup>th</sup> April 2015), and the date of registration. Statistical tests were run to see if there was any significant difference between the ages of those in prison and those at liberty.

The gender, ethnicity and nationality information was able to be presented in simple tabular or graph format to demonstrate the findings.

## **Risk of Reconviction Categories**

The current categories of the 1098 RSOs as judged by three risk assessment tools was presented in tabular format.

#### **RSO Re-offending**

The RSOs were grouped into those who had offended post registration and those who had not. This was cross-tabulated with the Risk Matrix 2000 category and a chi-square test was conducted to investigate if there is a systematic relationship between re-offending and the risk category applied through Risk Matrix 2000.

#### **Application of a Crime Harm Index**

The application of two crime harm indexes was carried out as described in the earlier section. In terms of analysis, the contrasts and similarities between the Cambridge CHI and CHI Jackman were evaluated.

Assessment was made at this juncture as to which was the better index before continuing the analysis. The Jackman CHI was deemed to have fewer drawbacks and was therefore used for the further statistical analysis using SPSS.

#### Correlation between harm inflicted and risk of reconviction category

To assess whether the level of harm inflicted correlated to the risk of reconviction category a Spearman correlation test was carried out.

#### A 'Power Few'?

To assess whether there are a 'Power Few' RSOs responsible for the majority of harm, a descriptive analysis was carried out rank ordering the RSOs by their level of harm, with the results displayed in a Pareto chart.

## Are Offender Managers Downgrading Lower Harm RSOs?

T-tests for independent samples were conducted to test whether the average Jackman CHI per offence of those RSOs downgraded was significantly lower than those who were yet to be assessed within the same category, or the mean harm of the 'Power Few'.

## **Offending Patterns**

The data was assessed to see how many offenders only had convictions for sexual offences. However, because in some cases, an RSO may have 11 offences, 10 of which were sexual, it was deemed more appropriate to calculate the percentage of offences which were sexual. If 90% or more of an RSO's offences were sexual, this was categorised as 'solely sexual offending'.

Further descriptive analysis identified whether offenders specialised in a single offence.