# **Bringing Together Scotland's Crime Statistics**

Justice Analytical Services, Scottish Government October, 2014

### **Executive Summary**

<u>Police recorded crime</u> and the <u>Scottish Crime and Justice Survey (SCJS)</u> are essential complementary sources of data that, together, present a fuller picture of crime in Scotland.

This report contains analysis that compares police recorded crime statistics to the results of the SCJS. This analysis is useful in assessing the scale of the difference between the volume of crime that is recorded by the police and the level of crime that is estimated to be experienced by the adult population in Scottish households.

The report also provides background on each source and outlines their relative strengths and limitations, which make them more appropriate in different contexts and for different purposes.

Police recorded crime provides frequent data, covering a wider range of crimes than the SCJS, and can provide statistics for low level geographies (i.e. local authorities). It is largely dependent on the public reporting crimes to the police and as a result, provides a good measure of the level of crime that the police are faced with. Recorded crime statistics are sensitive to public reporting practices and police recording practices, however, adherence to the SCRS is closely monitored by HMICS.

As a victimisation survey of adults resident in private households in Scotland, the SCJS does not capture data on all crimes. For example, those against victims who are under 16 years of age; those living in group residences; institutions or those without a fixed address; crimes without a single identifiable victim; or crimes against commercial or public sector bodies. In addition, estimates produced by the SCJS are subject to a level of quantifiable and non-quantifiable error. Although a number of steps in the design and implementation of the survey are taken to reduce such errors, they can never be fully eliminated.

A key strength of the SCJS, however, is its ability to capture crimes that are not reported to, and therefore not recorded by, the police. The SCJS also provides information on the characteristics of victims and offenders, such as their age and gender, and provides views and attitudes on policing and the wider criminal justice system. Latest figures from the SCJS show that there were an estimated 815,000 incidents of crime against adults in Scotland in 2012/13, 22% lower since the 2008/09 survey. In 2012/13, the Scottish police recorded 273,053 crimes.

However, differences between the two data sources create challenges in making direct comparisons, particularly when assessing trends over time. For example, due to changes in the survey methodology, consistent data is currently only available for the four survey sweeps since 2008/09. In addition the SCJS gathers information from a sample rather than from the whole population and, although the sample is

designed carefully to make allowances for this, survey results are always estimates, not precise figures. This means that they are subject to a margin of error which can have an impact on how changes in the some of the estimates should be interpreted, especially in the short-term, and particularly where sample sizes are relatively small for some of the SCJS crime sub-groups.

Comparisons between recorded crime and SCJS data can be made by examining a comparable subset of crimes which are covered by each source and can be coded in an approximately similar fashion. Comparisons are made in three broad crime groups: vandalism, acquisitive crime and violent crime. In the comparable group, recorded crime figures and SCJS estimates both show downward trends in the extent of crime since 2008/09 (-33% and -28% respectively).

The comparable subset can also be used to assess the relationship between crime estimated to have been reported to police and the level recorded by the police. Figures from the 2012/13 SCJS show that that around 232,000 incidents (44%) of crime in the comparable category were reported to police. From this, it can be estimated that 62% of crime that the SCJS estimates were reported to the police were actually captured in police recorded crime figures in 2012/13. While there is some variation in this proportion across the sweeps of the survey, there is not enough evidence at this stage to make confident statements about trends.

This report extends the analysis further to consider the differing time periods covered by the two sources of data i.e. annual financial years recorded crime data compared to biennial SCJS reports. Analysis was conducted which averaged and aggregated recorded crime data over two consecutive years to enable comparison to the biennial SCJS fieldwork period. The results of this work were broadly consistent with the results of the work conducted on the original annual recorded crime and biennial SCJS data. However, this approach also identifies less difference between SCJS and recorded crime results, mainly due to a lagged effect driven by the general reduction in crime rates over recent years.

Consistent comparable crime data are only available for a relatively short time scale, and it is notable that the change in crime estimated, at the overall level, between the most recent surveys is not statistically significant. Undertaking this analysis over future years will help to assess this further and more closely examine the relationship between SCJS estimates and police recorded crime figures.

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### 1. Introduction

Statistics on crime in Scotland come from two main sources: police recorded crime data and the Scottish Crime and Justice Survey (SCJS). The SCJS is a national survey that measures victimisation amongst adults living in private households<sup>1</sup>, whereas the police recorded crime data measures crime that is recorded by the police. The two sources are, by their nature, complementary as they measure crime in Scotland in different ways, and can be used for different purposes.

This report contains analysis that compares police recorded crime statistics to the results of the SCJS. This analysis is useful in assessing the scale of the difference between the volume of crime that is recorded by the police and the level of crime that is estimated to be experienced by the adult population in Scottish households. This chapter introduces the work and provides some initial details on the two sources. The following chapters provide an overview of the findings of the <a href="SCJS 2012/13: Main Findings">SCJS 2012/13: Main Findings</a> and <a href="Recorded Crime in Scotland 2012-13">Recorded Crime in Scotland 2012-13</a>, considering the need for two main sources of national-level statistics of crime in Scotland, before outlining how comparisons can be made between them.

Crimes recorded by the police provide a measure of the volume of crime with which the police are faced. Recorded crime statistics are important because they allow central and local government to evaluate measures in place to reduce crime, and to assess the performance of policing and criminal justice organisations in Scotland. Publishing recorded crime figures also allow the public to make assessments on the risk of crime that they face and allow police and justice agencies to use evidence to adequately target resources.

However, recorded crime statistics alone do not provide a comprehensive picture of crime in Scotland. Estimates produced by crime surveys are higher than the volume recorded by the police, emphasising that, for many reasons, not all crimes come to the attention of the police. Moreover, crime recording is sensitive to changes in public reporting practices, police recording practices and, in part, police deployment and activity. The impact of these, and other effects, contribute to a difference between police recorded crime statistics and crime survey estimates.

One of the key motivations in collecting crime survey data is to assess the scale of the difference between crimes recorded by the police, and those experienced by the population resident in private households. Taken together, recorded crime and SCJS data present a fuller picture of the extent and nature of crime in Scotland than either source could do alone. In particular, crime survey estimates can provide an independent check of recorded crime statistics, so bringing together crime survey

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<sup>&</sup>lt;sup>1</sup> "private households" also includes households living in private rental or social housing – the sampling frame used for the survey Royal Mail's small user Postcode Address File (PAF). As a result, the sample excludes business addresses, and communal establishments such as care homes.

estimates and police recorded crime figures can help to develop a clearer understanding of the absolute number of crimes as well as national trends in crime, whilst also providing information on the characteristics and attributes of crime, victims and offenders.

Although national level statistics on crime in Scotland are primarily drawn from police recorded crime data and the SCJS, a range of related information on crime is available from other organisations including, but not restricted to, <a href="Police Scotland">Police Scotland</a>, <a href="Scottish Police Authority">Scotland</a>, <a href="Heat Majesty's Inspectorate of Constabulary in Scotland (HMICS)</a>. <a href="The Scottish Household Survey">The Scottish Household Survey</a> (SHS)</a> also collects information on anti-social behaviour, public perceptions of crime in their neighbourhood, as well as data on experiences of harassment and discrimination. This information is published annually in <a href="Chapter 4">Chapter 4</a> of the SHS. While these and other sources of information on crime are available, the focus of this report is the two main, complementary sources of crime: police recorded crime and the SCJS.

### 1.1 Police Recorded Crime

<u>Police recorded crime</u> figures are published annually. The annual bulletin presents statistics on crimes and offences recorded and cleared up<sup>2</sup> by the police in Scotland, disaggregated by crime/offence group and by local authority. In addition to the annual Recorded Crime in Scotland bulletin a number of companion bulletins based on police recorded crime data are published by the Scottish Government on:

- Recorded Crime in Scotland
- Domestic Abuse Recorded by the Police in Scotland
- Homicide in Scotland
- Racist Incidents Recorded by the Police in Scotland
- Recorded Crimes and Offences Involving Firearms

Police recorded crime data are recorded into operational IT systems which are in place to comprehensively log incidents reported to the police and resulting crimes and offences. All reports of incidents, whether crime-related or not, result in the creation of a report, which is auditable. Following this initial registration, an incident is recorded as a crime, in all cases, if the circumstances amount to a crime as defined by Scots Law, and there is no credible evidence to the contrary. Once recorded, a crime remains recorded unless there is sufficient evidence to disprove that a crime has occurred.

At present, the legacy (pre-Police Scotland) police force systems are still in operation while a Scotland-wide recording system is being developed. Prior to the establishment of Police Scotland, the eight legacy forces extracted the data from

<sup>&</sup>lt;sup>2</sup> A crime or offence is regarded as 'cleared up' where there exists a sufficiency of evidence, under Scots law, to justify consideration of criminal proceedings. A full definition is available in the [Recorded Crime User Guide – DN – insert hyperlink.]

these operational systems and submitted it the Scottish Government<sup>3</sup>. The data was then subject to a quality assurance process before being considered final. Annex A (DN – insert hyperlink) provides an overview of how quality is maintained in police recorded crime statistics.

#### 1.2 SCJS

The Scottish Crime and Justice Survey (SCJS) is a large-scale continuous survey measuring adults' experience and perceptions of crime in Scotland. The survey is based on around 12,000 face-to-face interviews with adults (aged 16 or over) living in private households in Scotland. The survey also includes a self-completion component on sexual victimisation and stalking, partner abuse and drug use. The main aims of the SCJS are to:

- Examine trends in the number and nature of crimes in Scotland over time, providing a complementary measure of crime compared with police recorded crime statistics;
- Examine the varying risk of crime for different groups of adults in the population;
- Provide a valid and reliable measure of adults' experience of crime, including services provided to victims of crime;
- Collect information about adults' experiences of, and attitudes to, a range of crime and justice related issues.

The results of the SCJS are published biennially. The Scottish Government publish the results of the main questionnaire, as well as three thematic reports on the results of the self-completion questionnaire:

- SCJS Main Findings report
- SCJS Drug Use report
- SCJS Partner Abuse report
- SCJS Sexual Victimisation & Stalking report

#### 1.3 Two Sources of Crime Statistics in Scotland

Having two sources of crime statistics is important in providing a fuller picture of crime in Scotland. However, having two sources of crime statistics can create confusion or reduce clarity (see <a href="Annex C">Annex C</a>). We recognise the importance of ensuring that how we compile and communicate information from the two main sources of crime statistics in Scotland is clear, open and impartial. To address this:

• this report presents more comprehensive information and results on both sources to inform the background to an analysis comparing the two sources;

<sup>&</sup>lt;sup>3</sup> However, the police have developed a performance reporting system which allows data to be uploaded from the many legacy force systems for the purposes of producing management information from 1 April 2013. It is from this data source that the Scottish Government will receive data for 2013-14 onwards.

 additional detail on the SCJS has been added to the annual Recorded Crime Statistical Bulletin to bring together SCJS and police recorded crime data.

The following sections of this report are structured in three main parts. Chapter 2 provides an overview of the findings of the SCJS 2012/13: Main Findings and Recorded Crime in Scotland 2012-13, the latest consistent year for which data are available from both sources. Chapter 3 then considers the need for two main sources of national-level statistics of crime in Scotland and how comparisons can be made between them. This section outlines the strengths and limitations of each source, as well as the challenges in making direct comparisons. This section then goes on to outline how comparisons can be made between the two sources using the comparable crime subset. Finally, chapter 4 uses the comparable subset to present an analysis of the relationship between recorded crime and the SCJS.

### 2. An overview of crime in Scotland

#### 2.1 Overall Level and Trends- SCJS and Police Recorded Crime

This section presents recent results and trends in crime statistics from police recorded crime figures and the Scottish Crime and Justice Survey<sup>4</sup>. Data is presented to 2012/13, the latest year that data are available from both sources.

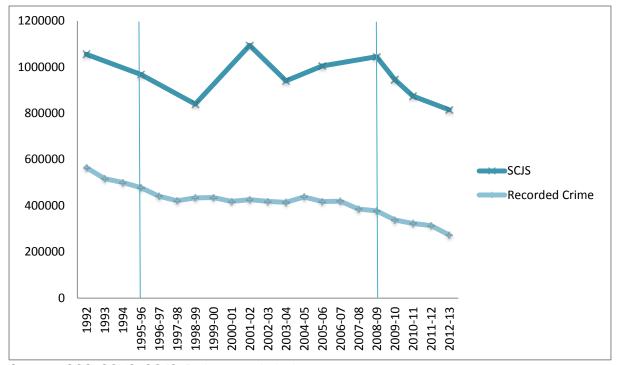


Figure 2.1 Trends in police recorded crime and SCJS, 1992 to 2012/13

Sources: SCS, SCVS. SCJS, Police recorded crime.

- 1. The recording period moved from calendar year to financial year after 1994.
- 2. The survey moved to the current SCJS design in 2008/09.

The introduction of the Scottish Crime Recording Standard (SCRS) in April, 2004 has helped maintain a consistent approach to recording crime. As anticipated, this has increased the numbers of minor crimes recorded by the police, such as minor crimes of Vandalism and minor thefts. However, it was not anticipated that the SCRS would have a notable impact on the figures for more serious crimes such as Serious assault, Sexual assault, Robbery or Housebreaking. Since 2005/06 recorded crime figures have been on a relatively steady downward trend (Figure 2.1).

Before moving to the current SCJS methodology in 2008/09, crime survey estimates in Scotland were derived from smaller sample surveys and, in general, subject to a higher level of uncertainty. This is reflected in the fluctuations in the overall level of

<sup>&</sup>lt;sup>4</sup> Previously known as the Scottish Crime Survey (SCS) and the Scottish Crime and Victimisation Survey (SCVS).

crime estimated prior to 2008-09. Since the shift to the current survey design and increased sample sizes in 2008/09, survey estimates of the overall level of crime have fallen, in line with the sort of reductions seen in recorded crime.

The latest figures from the SCJS show that there were an estimated 815,000 incidents of crime against adults in Scotland in 2012/13. Between the 2010/11 and 2012/13, the change in the overall level of crime estimated is not statistically significant. However, the cumulative effect of changes is statistically significant, showing a decrease of 22% since the 2008/09 survey. The survey estimates that, in 2012/13, around one in six (16.9%) adults aged 16 or over were the victim of at least one crime.

In 2012/13, the police in Scotland recorded 273,053 crimes, 13% fewer crimes than in 2011/12 and 28% fewer than in 2008-09. All eight legacy police forces showed a decrease in the number of crimes recorded in 2012/13, compared to 2011/12. The scale of the decrease ranged from 6% for Tayside, to 16% for Northern.

Figure 1 highlights the scale of the difference in number of the overall crimes estimated by the SCJS and those recorded by the police. The SCJS is able to capture crimes that are not reported to the police, and therefore not included in recorded crime figures. The distinctions between crime survey data and recorded crime figures that lead to this contrast are explored further in Chapter 3 of this report.

# 2.2 Police Recorded Crime level and trends by crime and offence groups

The annual recorded crime bulletin presents statistics on crimes and offences recorded and cleared up by the eight legacy Scottish police forces. Box 1 below presents the seven crime and offence categories used to present recorded crime data<sup>5</sup>. The term "crime" is generally used for the more serious criminal acts; the less serious are termed "offences". The distinction is made for statistical reporting purposes and the "seriousness" of the offence is generally related to the maximum sentence that can be imposed. This distinction has been consistently used since the publication of these statistics began.

**Box 1: Main recorded crime and offence groupings** 

Crime Groups Group 1: Non-sexual crimes of violence	Offence Groups
Group 2: Sexual crimes <sup>6</sup>	Group 6: Miscellaneous offences

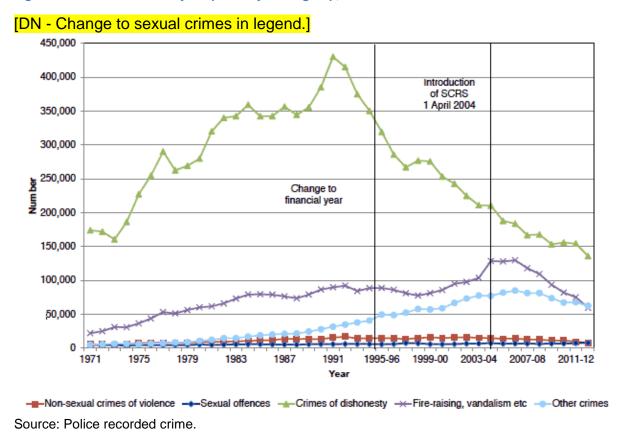
<sup>&</sup>lt;sup>5</sup> For a full overview of the crimes and offences covered by each group, see <u>Chapter 8</u> of the Recorded Crime in Scotland annual publication.

<sup>&</sup>lt;sup>6</sup> Previously referred to 'Sexual offences' prior to the 2013-14 Recorded Crime Bulletin.

Group 3: Crimes of dishonesty	Group 7: Motor vehicle offences
Group 4: Fire-raising, vandalism etc.	
Group 5: Crimes against public justice	

Crimes relate to Groups 1 to 5; Non-sexual crimes of violence, Sexual crimes, Crimes of dishonesty, Fire-raising, vandalism etc. and Other crimes. Offences relate to Groups 6 and 7, namely, Miscellaneous offences and Motor vehicle offences.

Figure 2.2 Crimes recorded by the police by crime group, 1971 to 1994 then 1995-96 to 2012-13



The total number of crimes recorded by the police in 2012-13 was 273,053, 13% lower than in 2011-12 (Figure 2.2 and Table 2.1). The total remains well below the 2004-05 figure of 438,123 and is the lowest number recorded since 1974.

Between 2011/12 and 2012/13, police recorded crime shows a decrease in four of the five crime groups:

- The number of Non-sexual crimes of violence recorded by the police decreased by 21% between 2011-12 and 2012-13, to a total of 7,530.
- The number of Crimes of dishonesty decreased by 12% to stand at 135,899 crimes in 2012-13.
- Recorded crimes of Fire-raising, vandalism etc. decreased by 21% to total 59,479 in 2012-13.

- The number of Other crimes decreased by 8% between 2011-12 and 2012-13 to total 62,452.
- The number of Sexual crimes increased by 5% from 7,361 in 2011-12 to 7,693 in 2012-13.

There was a 3% decrease in the number of Miscellaneous offences recorded in 2012/13, largely due to a substantial decrease in the number of recorded common assaults. This decrease was offset by a 3% increase in the number of motor vehicle offences.

Table 2.1 Number of recorded crimes and offences, by crime and offence group, 2002/03-2012/13

	2003- 04	2004- 05	2005- 06	2006- 07	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	Percer Char 2011/12 -2012/13	U
Non-sexual crimes of violence	15,187	14,728	13,726	14,099	12,874	12,612	11,228	11,438	9,533	7,530	-21%	-50%
Sexual crimes	6,785	7,325	6,558	6,726	6,552	6,331	6,527	6,696	7,361	7,693	5%	13%
Crimes of dishonesty	211,004	210,365	187,798	183,760	166,718	167,812	153,256	155,870	154,337	135,899	-12%	-36%
Fire- raising/vandalism	103,732	128,566	127,889	129,734	118,025	109,430	93,443	82,020	75,201	59,479	-21%	-43%
Other crimes	77,506	77,139	81,814	84,938	81,340	81,248	73,670	67,223	67,756	62,452	-8%	-19%
TOTAL CRIMES	414,214	438,123	417,785	419,257	385,509	377,433	338,124	323,247	314,188	273,053	-13%	-34%
Misc offences	180,963	214,302	219,491	232,373	224,256	226,821	230,971	209,967	210,401	203,421	-3%	12%
Motoring offences	434,873	424,236	380,367	373,094	345,915	331,301	330,738	318,368	331,914	340,347	3%	-22%
TOTAL OFFENCES	615,836	638,538	599,858	605,467	570,171	558,122	561,709	528,335	542,315	543,768	0%	-12%

Source: Police recorded crime.

### 2.3 SCJS level and trends by crime groups

The SCJS Main Findings reports present information in two broad crime categories: **Property Crime** and **Violent Crime**.

Box 2: Crime groups used in the SCJS

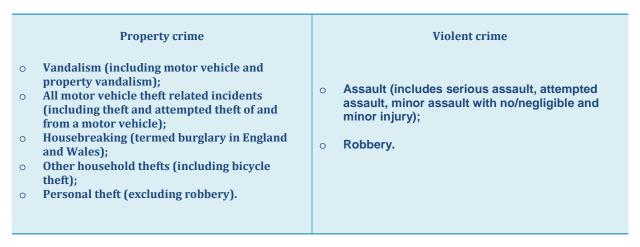


Figure 2.3 provides a breakdown of the estimated 815,000 incidents of crime against adults in Scotland in 2012/13, showing the proportion of crime measured by the SCJS in aggregated crime groups.

Robbery **Violent Crime** 1% (29%)Vandalism Minor Assault with no/ 26% negligible injury 19% Minor Assault with injury Attempted Assault 3% Serious Assault Other h'hold theft (incl. Personal theft (excl. cycles) robbery) 22% 13% Property Crime \_Housebreaking (71%)All motor vehicle theft 4%

Figure 2.3 Percentage of SCJS crime in each crime group

Table 2.2 Percentage change in estimates of numbers of all SCJS crime, by crime group, 2008/09 to 2012/13.

					Percentag	ge Change
					2010/11-	2008/09-
	2008/09	2009/10	2010/11	2012/13	2012/13	2012/13
All SCJS Crime	1,045,000	945,000	874,000	815,000	-7%	-22%
PROPERTY CRIME	728,000	679,000	654,000	579,000	-12%	-21%
Vandalism	350,000	303,000	275,000	219,000	-20%	-37%
All motor vehicle theft						
related incidents	70,000	64,000	58,000	50,000	-14%	-29%
Housebreaking	25,000	29,000	28,000	35,000	23%	36%
Other h'hold theft (inc						
bicycles)	173,000	153,000	169,000	169,000	0%	-2%
Personal theft (excl. robbery)	110,000	130,000	124,000	106,000	-14%	-3%
VIOLENT CRIME	317,000	266,000	220,000	236,000	7%	-25%
Assault	297,000	247,000	208,000	225,000	8%	-24%
Robbery	20,000	19,000	12,000	11,000	-6%	-42%
Base	16,000	16,040	13,010	12,050		

Sources: SCJS

Note: Statistically significant SCJS changes highlighted in bold

### **Property Crime**

Property crime measured in the SCJS involves theft or damage to personal or household property (including vehicles) (Box 2). In 2012/13, approximately 579,000 crimes (71% of all SCJS crime) fell into this category (Figure 2.3 and Table 2.2). Around 15% of adults in Scotland were estimated to have been a victim of property crime in 2012/13.

Vandalism accounted for 27% of property crime in 2012/13, followed by other household theft (including bicycle theft, 21%), personal theft (excluding robbery, 13%), all motor vehicle theft related incidents (6%) and housebreaking (4%).

Between 2010/11 and 2012/13, there was a statistically significant decrease of 12% in property crime captured by the SCJS. Since 2008/09, SCJS estimates of property crime have decreased significantly by 21%.

In addition, the findings of the SCJS 2012/13 are able to present more information on the nature and characteristics of property crime, for example:

- The risk of being a victim of property crime was almost the same for males (15%) and females (14%).
- The risk of being a victim of property crime was similar for 16-24 year olds (18%) and 25-44 year olds (19%). Thereafter, the risk decreased with age, with 8% of those aged 60 or over being at risk of being a victim of property crime.
- The risk of property crime was higher for adults living in the 15% most deprived areas (18%) compared with those living in the rest of Scotland (14%).

Respondents perceived the likelihood of experiencing property crime to be higher than the actual risk. For example, six times as many adults thought that they were likely to have their home broken into than actually were a victim of housebreaking (7% compared with the actual risk of 1.2%).

Over a third (35%) of property crimes were reported to the police. Reporting rates were influenced by whether the property was insured and whether an insurance claim was made. For example, 48% of crime was reported when the property was insured, compared to 29% of crime where the property was not insured. The most common reasons<sup>7</sup> for not reporting property crime was that the incident was considered to be 'too trivial' (43%) or that the victim felt that the police could have done nothing (41%).

### **Violent Crime**

Violent crime in the SCJS includes attempted assault, serious assault, minor assault and robbery (Box 2). Of the 815,000 crimes measured by the SCJS in 2012/13, 236,000 (29%) were violent crimes. Minor assaults made up the majority of SCJS violent crimes (23%), followed by attempted assault (3%), serious assault (2%) and robbery (1%). It is estimated that 3.1% of adults in Scotland were a victim of violent crime in 2012/13.

The differences in the estimates of violent crime between 2011/12 and the 2012/13 SCJS was not statistically significant. However, the cumulative effect of changes since 2008/09 is statistically significant, showing a 25% decrease in violent crimes.

The findings of the SCJS 2012/13 are able to present more information on the nature and characteristics of violent crime. The results show that age, gender and deprivation contributed to the likelihood of experiencing violent crime:

 males had a higher risk of being a victim of violent crime compared with females (4% cent and 2% respectively).

<sup>&</sup>lt;sup>7</sup> respondents were able to give multiple reasons why they chose not to report crime.

- the risk of being a victim of violent crime decreased with age, from 8% for 16-24 year olds to less than 0.5% of those aged 60 or over.
- the SCJS 2012/13 also showed that the risk of being a victim of violent crime was higher for adults living in Scotland's 15% most deprived areas (5%) compared with those living in the rest of Scotland (3%).

The SCJS 2012/13 estimates that males aged 16-24 had the highest risk of being a victim of violent crime (11%), and were just over twice as likely to be a victim of violent crime than males aged 25-44 (5%) and females 16-24 (5%).

Respondents perceived the likelihood of experiencing violent crime to be higher than the actual risk. For example, adults were 20 times more likely to think that they were at risk of being mugged or robbed than they actually were (4% compared to the actual risk of robbery 0.2%).

The SCJS also gathers information on whether incidents were reported to the police and why individuals choose to report, or not report, crime. Just under half (48%) of SCJS violent crime incidents were reported to the police in 2012/13. This is consistent with the findings of the SCJS 2010/11. Police were not informed about violent crimes for many reasons. The most common reasons<sup>8</sup> given for not reporting violent crimes was that: the victim felt that the police could have done nothing (24%); the victims dealt with the matter themselves (23%); the incident was considered to be too trivial and not worth reporting (17%); the police would not have been interested (16%); the incident was considered a personal or family matter (14%).

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<sup>&</sup>lt;sup>8</sup> respondents were able to give multiple reasons why they chose not to report crime.

# 3. Comparing the SCJS and Police Recorded Crime

While the SCJS and recorded crime each provide data on crime in Scotland, they feature relative strengths and limitations, making them more appropriate in different contexts and for different purposes. This chapter first outlines the relative strengths and limitations of each source and considers the challenges in making direct comparisons between police recorded crime and the SCJS; it then introduces the comparable subset of crimes that enables comparisons to be made between police recorded crime and the SCJS.

**Table 3.1 Recorded Crime and SCJS compared** 

	Recorded Crime	Scottish Crime and Justice Survey				
Where do the data come from?	Administrative police records	Face to face interviews with residents from a nationally representative sample of the household population				
Basis for inclusion	Crimes recorded to the police in Scotland, governed by the Scottish Crime Recording Standard.	Trained coders determine whether experiences of victimisation in the last 12 months constitute a crime and assign an offence code.				
Frequency	Collected by financial year. Statistics released in an annual publication.	Continuous survey with results published biennially.				
Strengths	<ul> <li>Covers the full range of crimes and offences.</li> <li>Provides data at a local level.</li> <li>A good measure of rarer, more serious crimes that are well reported.</li> <li>Measure of long-term trends.</li> <li>Good measure of crime that the police are faced with.</li> </ul>	<ul> <li>Good measure of trends since 2008/09.</li> <li>Captures information about crimes that are not reported to the police (including sensitive issues such as domestic abuse or drug abuse).</li> <li>Provides information on multiple and repeat victimisation (up to 5 incidents in a series).</li> <li>Analyses risk for different demographic groups and victimoffender relationships.</li> <li>Provides attitudinal data (e.g. fear of crime or attitudes towards the criminal justice system).</li> </ul>				
Limitations	<ul> <li>Partially reliant on the public reporting crime.</li> <li>Reporting rates may vary by the type of crime (e.g. serious crime is more likely to be reported or housebreaking if a crime number is required for insurance purposes).</li> <li>Trends can be affected by legislation; public reporting practices; police recording practices.</li> </ul>	<ul> <li>Does not cover all crimes (e.g. homicide or 'victimless' crimes such as speeding).</li> <li>Does not cover the entire population (e.g. children, homeless people or people living in communal accommodation).</li> <li>Unable to produce robust data at lower level geographies.</li> <li>Difficult to measure trends between survey sweeps in rarer forms of crime (such as more serious offences).</li> <li>Estimates are subject to a degree of error.</li> </ul>				

	Recorded Crime	Scottish Crime and Justice Survey
What other	<ul> <li>Additional statistical</li> </ul>	<ul> <li>Public perceptions about crime.</li> </ul>
data are	bulletins published on	<ul> <li>Worry about crime and the perceived</li> </ul>
collected?	homicides, racist incidents,	likelihood of being a victim.
	firearm offences and	<ul> <li>Confidence in the police and the</li> </ul>
	domestic abuse incidents.	criminal justice system.
		<ul> <li>Prevalence estimates on 'sensitive'</li> </ul>
		topics (partner abuse, sexual
		victimisation, stalking and drug use).

#### 3.1 Police Recorded Crime

Police recorded crime data covers a wider range of crimes than the SCJS (for example, including so-called 'victimless' crimes such as drug possession). However, it largely depends on the public reporting crimes to the police. Crime survey estimates are consistently higher than recorded crime figures, indicating that not all crimes that take place come to the attention of the police. Whether a victim decides to report a crime can be influenced by several factors<sup>9</sup>, for example,

- Socio-economic characteristics of the victim (such as age, sex, ethnicity, personal or household income and labour market status);
- Incident-specific factors (e.g. victim-offender relationship, the perceived severity of the crime or likelihood of an insurance claim);
- Attitudes towards the police;
- High-profile cases (e.g. the impact of cases such as the Jimmy Savile child abuse inquiry leading to an increase in reports of sexual abuse);
- Victim's involvement in criminal activity.

In general, recorded crime data better measures crimes that are reported to the police, such as serious but rare crimes. However, as well as being affected by changes in public reporting practices, recorded crime levels can be affected by police recording/counting practices and changes may not reflect changes in underlying crime trends. For example, the introduction of the Scottish Crime Recording Standard (SCRS) in April, 2004 impacted on trends in recorded crime between 2003/04 and 2004/05<sup>10</sup>, leading to a 6% increase in crime. These figures reflected the shift to a more victim-oriented approach that led to increased recording of minor crimes such as vandalism and minor thefts.

Police recorded crime essentially provides a count of crime and it is not possible to analyse victimisation against other demographic variables, or collect data on public attitudes. The police recorded crime statistics collected by the Scottish Government are based on an aggregate return at local authority level, and consequently, do not provide information on the characteristics of victims such as age and gender or the circumstances of the crime such as the locus of the crime.

<sup>10</sup> More information can be found in the Statistical Bulletin on Recorded Crime in Scotland 2004/05

<sup>&</sup>lt;sup>9</sup> See <u>Tarling and Morris (2010)</u> and <u>MacDonald (2001)</u> for further discussion.

While the results of the SCJS are now published biennially, recorded crime statistics are available on an annual basis. Data on the number of crimes recorded by the police are collected in an annual return from Police Scotland's recording systems and are based on crimes recorded by the police during the financial year with the collection period taking place from 1<sup>st</sup> April to 31<sup>st</sup> March each year.

Recorded crime is also able to provide information for lower geographical areas. Statistics are provided on crimes recorded by the police at <u>local authority</u> and national level (and at legacy police force area prior to police reform).

### 3.2 Scottish Crime and Justice Survey

The SCJS is a national survey, carried out using a stratified random sample<sup>11</sup>, in 2012/13 obtaining responses from around 12,000 adults (aged 16 and over) living in private households.

One of the main strengths of the SCJS is its ability to capture crimes that are not reported to, and therefore not recorded by, the police. SCJS data is able to provide national level estimates of crime that are not available from police recorded crime figures.

Another strength of the SCJS is its capacity to analyse victimisation against other demographic variables, such as age, gender, socio-economic group, tenure status and area deprivation. The survey is also able to capture attitudinal data, such as perceptions of crime rates, fear of crime and attitudes towards the criminal justice system.

The SCJS is a victimisation survey of the adult population resident in private households, whereas police recorded crime captures both a wider population and a wider set of offences, but only where the crime is reported and recorded. The design of the SCJS means that the survey does not capture:

- Crimes against victims who are under 16 years of age;
- Crimes against those living in group residences, institutions or those without a fixed address (e.g. care homes, halls of residence, hostels or bed and breakfasts);
- Crimes without a single, identifiable victim (e.g. speeding);
- Crimes against commercial or public sector bodies.

Certain groups within the population are also more likely to respond to surveys of this kind, meaning that some groups can be harder to reach. For example young men, or individuals from deprived areas, are underrepresented in the SCJS. To

<sup>&</sup>lt;sup>11</sup> More details on the design of the SCJS can be found in the Technical Report.

ensure that the sample reflects the profile of the general population, the survey is weighted to adjust for this possible non-response bias.

The SCJS gathers information from a sample rather than from the whole population and survey results are always estimates, not precise figures. This means that they are subject to a level of uncertainty. To estimate the extent of this uncertainty, confidence intervals for the statistics are calculated to define bands within which the 'true' value of survey estimates are likely to lie (i.e. that value which would be obtained if a census of the entire population was undertaken). These confidence intervals are particularly important when making comparisons of SCJS estimates over short timescales. For example, it is notable that the change in estimated SCJS comparable crime between 2010/11 and 2012/13 is not statistically significant. Table 2.3 shows that more changes over longer timescales (i.e. since 2008/09) are statistically significant than changes in estimates between adjacent survey sweeps.

SCJS estimates are also subject to a margin of non-quantifiable error, for example:

- There may be errors in the recall of participants as to when certain incidents took place, resulting in some crimes being wrongly included in, or excluded from, the survey reference period (we expect that this is less of an issue with recorded crime data);
- Some respondents may have claimed to have reported a crime to police when they had not, feeling that this was the socially acceptable response;
- Some incidents could also be inaccurately recorded by interviewers, or miscoded by the wider survey team.

Although a number of steps in the design and implementation of the survey are taken to reduce such errors, they can never be fully eliminated.

### 3.3 Challenges in Making Direct Comparisons

While each source features relative strengths and limitations, taken together, recorded crime statistics and estimates produced by the SCJS provide a more comprehensive picture of crime in Scotland. Yet the differences between the SCJS and police recorded crime, outlined in the previous section, create challenges when making direct comparisons between the two sources.

The collection of survey data on crime and victimisation in Scotland has undergone several major changes in methodology. Prior to the current SCJS design (from 2008/09 onwards), consistent, nationally representative data are not available. The SCJS represents a major departure in survey design, methodology and sample size: 2008/09 (c. 16,000 interviews), 2009/10 (c. 16,000 interviews), 2010/11 (c. 13,000 interviews), 2012/13 (c. 12,000 interviews). Previous surveys were administered by

interviewers using paper questionnaires on considerably smaller samples (c. 5,000 interviews), and early surveys did not cover the Highlands and Islands of Scotland<sup>12</sup>.

Consistent recorded crime data is able to provide information about long term trends in the number of crimes recorded by the police. However, changing crime survey methodology in Scotland has implications for making comparisons across survey designs. As previous surveys had smaller sample sizes, estimates from earlier surveys are subject to a higher degree of uncertainty. In this regard, it should also be noted that the SCJS estimates are based on relatively small numbers of respondents who actually experience crime. For example, the risk of experiencing crime as measured by the 2012/13 SCJS was 16.9% (based upon around 2,300 incidents captured during survey interviews in 2012/13).

In comparison, crime survey data from England and Wales appears to have a greater scope for comparisons over time, with the British Crime Survey (BCS) and the Crime Survey for England and Wales (CSEW) being based on a larger sample, and offering ten sweeps of data for comparison since 2002/03<sup>13</sup>. Data over a longer timescale allows trends to be identified more readily and enabled the Office for National Statistics (ONS) to assess the relationship between survey data and recorded crime figures. In contrast, consistent and reliable crime survey data for Scotland is available since 2008/09, offering only four sweeps of survey data with which to attempt to complete similar analysis to examine and compare trends.

While making direct comparisons between the SCJS and police recorded crime statistics is important, it is challenging as there are key differences which affect the comparability of the sources:

- The SCJS interviews individuals over a 12 month period, with a rolling respondent recall period extending over 23 months, whereas crime is recorded by police in Scotland by financial year. As a result, SCJS data cannot be simply and directly compared to police recorded crime for a single financial year;
- The SCJS questionnaire asks respondents whether the police 'came to know about the incident', how the police came to know about the incident, why the respondent decided to report the incident to police and perceptions of how the police handled the incident. The SCJS questionnaire does not directly ask whether the incident was recorded by the police and what action was taken against the offender. Therefore, while the SCJS data can estimate the number of incidents that are 'reported' to police, it is not possible to match SCJS respondent microdata to recorded crime data and verify whether a crime that

<sup>&</sup>lt;sup>12</sup> More information on the variation in design of past Scottish crime surveys is available in the <u>Technical Report</u>.

ONS produced a methodological note entitled 'Analysis of Variation in Crime Trends' which analysed the relationship between comparable categories between the CSEW (formerly BCS) and police recorded crime series between 1981 and 2011/12.

- a respondent said that they reported to the police was actually recorded as such:
- Compared to recorded crime figures, the SCJS is unable to produce as robust data at legacy police force level and lower level geographies, therefore it is more difficult to make direct comparisons of trends in reporting crime at subnational levels<sup>14</sup>;
- SCJS estimates on crime categories (e.g. comparable violent crime) are often based on small sample sizes, offering less confidence around estimates, particularly when considering changes between survey sweeps.
- Various adjustments are made to the recorded crime data to maximise comparability with the SCJS data. However, consistent with the practice in the CSEW, the data are not adjusted to remove crimes against victims under the age of 16 or crimes against commercial businesses and this limits the overall comparability of the two sources.

### 3.4 The Comparable Crime Subset

As the previous section has outlined, making comparisons between police recorded crime and the SCJS is not straightforward. In order to explore the relationship between the sources, it is necessary to look at those crimes which are covered by both datasets. Comparisons between recorded crime and SCJS data are made in on-going statistics publications by examining a comparable subset of crimes <sup>15</sup>. On this basis, of the 815,000 crimes estimated by the 2012/13 SCJS, just under two-thirds (527,000%) can be compared with police recorded crimes.

Comparisons are made in three broad crime groups:

- Vandalism (including motor vehicle vandalism and property vandalism).
- Acquisitive crime (including bicycle theft, housebreaking and theft of motor vehicles).
- Violent crime (including assault and robbery).

Table 3.1 gives an overview of the recorded crimes and SCJS crimes that make up each comparable crime group. To enable consistent comparisons to be made, SCJS violent crimes have been compared to a set of recorded crimes comprising a range of Group 1 non-sexual crimes of violence and Group 6 common assault offences.

These crime groups can be compared because they are covered by each source and can be accurately coded in the SCJS in the same way as the police would do (i.e. there is less likely to be ambiguity in what actually happened). In contrast, some other crimes cannot be compared on a consistent basis so they are not included in

<sup>&</sup>lt;sup>14</sup> It should be noted that the 2012/13 SCJS pre-dates the establishment of Police Scotland on April 1 2013 and covers the final year of operation of the eight legacy police forces.

<sup>&</sup>lt;sup>15</sup> See <u>Section 2.4</u> and <u>Annex 5</u> of the SCJS and the <u>Technical Report</u> for some further information on comparable crime groups.

the comparable subset, for example crimes of theft from a motor vehicle, personal theft and other household theft.

Various adjustments are made to the recorded crime categories by Scottish Government statisticians to maximise comparability with the SCJS. In previous crime surveys in Scotland, police recorded crime statistics were adjusted further to remove crimes against victims aged 15 or younger and crimes against businesses. However, for the SCJS these adjustments have not been made for the following reasons:

- This further adjustment came from a Strathclyde police survey from 2002 which was before the change to recorded crime practices brought about by the Scottish Recorded Crime Standard so it may not be valid any longer;
- The adjustment may still be appropriate, but given that the data from the SCJS can now be provided at police force area (PFA) level it is not appropriate to use Strathclyde's adjustment across all forces.

The decision not to adjust police recorded crime statistics is consistent with established practice on the CSEW.

In light of this, it should be recognised that this 'comparable' series is broadly, rather than directly, comparable and the offence classification system used in the survey can only approximate that used by the police. Making comparisons between SCJS categories and police recorded offence codes are approximate and categories will not be directly equivalent in all cases.

**Table 3.2 Comparable Subset of Crime** 

Comparable Crime Group	SCJS Code	Recorded crime code and description
	<ul> <li>Serious assault</li> <li>Serious assault and fire raising</li> <li>Serious assault and housebreaking</li> </ul>	<ul> <li>4000 Serious Assault</li> <li>4001 Causing injury etc. by culpable &amp; reckless conduct</li> </ul>
Violent Crime	<ul> <li>Minor assault with injury</li> <li>Minor assault with no/negligible injury</li> <li>Attempted assault</li> <li>Minor assault with no/negligible injury</li> </ul>	<ul> <li>47001 Common Assault</li> <li>47006 Common assault of an emergency worker</li> </ul>
	<ul><li>Robbery</li><li>Attempted robbery</li></ul>	o <b>6000</b> Robbery and Assault with intent to rob
Acquisitive Crime	<ul> <li>Housebreaking in a dwelling (nothing taken)</li> <li>Housebreaking in a dwelling (Something taken)</li> <li>Attempted housebreaking in a dwelling</li> </ul>	<ul> <li>19004 Theft by         Housebreaking domestic         property (dwelling)</li> <li>19007 Housebreaking with         intent to steal domestic         property (dwelling)</li> <li>19010 Attempted         Housebreaking with intent to         enter and steal domestic         property (dwelling)</li> </ul>
	<ul> <li>Theft of car/van</li> <li>Theft of motorbike,</li> <li>motorscooter or moped</li> <li>Theft of pedal cycle</li> </ul>	<ul> <li>22002 Theft of motor vehicle and contents incl. taking and driving away</li> <li>22004 Theft of Pedal Cycle</li> </ul>
Vandalism	<ul> <li>Vandalism to a motor</li> <li>vehicle</li> <li>Vandalism to the home</li> <li>Other vandalism</li> </ul>	<ul> <li>33012 Vandalism</li> <li>33014 Malicious Mischief</li> </ul>
	o Fire raising	<ul> <li>32001 Fire-raising excluding</li> <li>Muirburn</li> </ul>

### 4. Analysis of Trends in Comparable Crime

This chapter provides an overview of trends in the comparable crime category, since the shift to the current SCJS methodology in 2008/09. It is useful to look at how the SCJS estimates compare with the police recorded crime statistics as this can shed light on whether crime rates are actually changing, or people are tending to report more or less crime, or police crime recording practices are changing. This chapter also uses the comparable crime subset to examine the relationship between the number of SCJS crimes estimated to have been reported to police and the number of crimes recorded by the police.

With only four survey sweeps, and small base sizes in crime subgroups, some aspects of this analysis should be viewed with caution. These initial results are presented with the caveat that the lack of consistent comparable long-term data and in particular the small subsample sizes further limit the conclusions which can be drawn at this level. For example, it should be noted that the changes in overall comparable SCJS crime, and the sub-groups of violent crime and acquisitive crime, between 2010/11 and 2012/13, are not statistically significant.

### 4.1 Trends in the Comparable Crime Group

The SCJS 2012/13 estimated that there were 527,000 crimes in the comparable subset and in 2012/13, the police recorded 144,662 crimes and offences in the comparable subset. SCJS estimates are higher than recorded crime figures, even in the comparable category, because the survey is able to capture crime that does not come to the attention of the police and is therefore not captured in recorded crime statistics.

Table 4.1 Recorded crime and SCJS comparable crime subset, 2008/09 to 2012/13

					Percentage Change			
	2008/09	2009/10	2010/11	2012/13	2008/09- 2009/10	2009/10- 2010/11	2010/11- 2012/13	2008/09- 2012/13
Recorded Crime	215,901	195,728	183,117	144,662	-9%	-6%	-21%	-33%
SCJS Crime	731,000	630,000	556,000	527,000	-14%	-12%	-5%	-28%
Base	2,464	2,127	1,576	1,375				

Note: Statistically significant SCJS changes highlighted in bold.

900,000 800,000 700,000 SCJS (Best Estimate) 600,000 **Lower Confidence** 500,000 Limit 400,000 **Upper Confidence** Limit 300,000 Police Recorded 200,000 Crime 100,000 n 2008/092009/102010/11 2012/13

Figure 4.1 Recorded crime and SCJS estimates in the 'comparable crime' category, 2008/09 to 2012/13

Sources: SCJS, Police recorded crime.

Both recorded crime figures and SCJS estimates show downward trends in the extent of crime between 2008/09 and 2012/13 (-33% and -28% respectively). The fall in estimates across all sweeps of the SCJS, from 731,000 in 2008/09 to 527,000 in 2012/13, is a statistically significant change. However, the short-term change in SCJS comparable crime between 2010/11 and 2012/13 is not a statistically significant change (at the 95% confidence level, Table 4.1). At this stage, we do not have enough evidence to make confident assertions about longer-term trends in SCJS estimates in the comparable crime subset.

It is difficult to identify trends in the relationship between recorded crime and SCJS estimates using only four sweeps of comparable data. It is likely that greater certainty in trends will emerge over longer timescales, therefore continuing this analysis over future years will help to assess whether some of the short term changes reported here mark the beginning of a consistent pattern.

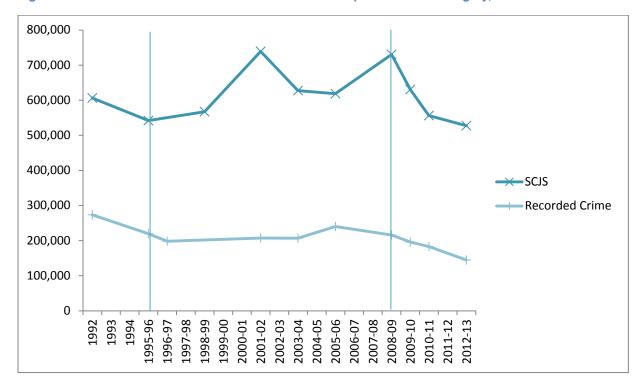


Figure 4.2 Recorded crime and SCJS estimates in the 'comparable crime' category, 1992 to 2012/13

Sources: SCS, SCVS. SCJS, Police recorded crime.

Note: The recording period moved from calendar year to financial year after 1994.

The survey moved to the current SCJS design in 2008/09.

Figure 4.2 compares crime survey data with recorded crime over a longer time scale, highlighting a higher level of fluctuation in the crime survey data prior to the break in methodology in 2008/09. Before 2008/09, crime survey estimates were derived from smaller samples which meant that there was a higher degree of uncertainty around survey results. In light of this, the analysis in this report focuses on comparing recorded crime figures and SCJS estimates since 2008/09, when the survey changed to its current design.

While examination of such overall trends are useful, they can often mask subtle differences changes by crime type. The remainder of this chapter examines each of the main crime groups in the comparable subset of crime.

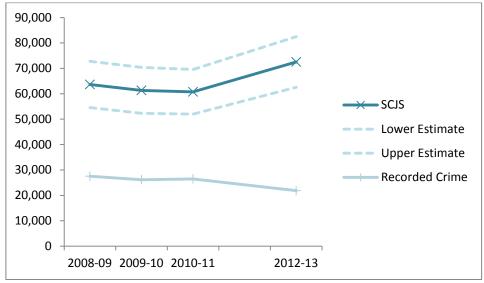
### 4.2 Trends in Acquisitive Crime

Table 4.2 Acquisitive crime comparable subset, 2008/09 to 2012/13

					Percentage Change			
	2008/09	2009/10	2010/11	2012/13	2008/09- 2009/10	2009/10- 2010/11	2010/11- 2012/13	2008/09- 2012/13
Recorded Crime	27,527	26,146	26,478	21,834	-5%	1%	-18%	-21%
SCJS Crime	64,000	61,000	61,000	73,000	-4%	-1%	19%	16%
Base	327	312	265	272				

Note: Statistically significant SCJS changes highlighted in bold.

Figure 4.3 Recorded crime and SCJS estimates in the acquisitive crime category, 2008/09 to 2012/13



Sources: SCJS, Police recorded crime.

Between 2010/11 and 2012/13, recorded crime figures show a downward trend in the acquisitive crime category, falling by 18%. However, as shown in Table 4.2, the change in SCJS acquisitive crime estimates between 2010/11 and 2012/13 is not statistically significant. In the medium term (2008/09 to 2012/13) the cumulative effect of these changes are also not statistically significant. Survey estimates on the comparable crime subgroups are based on small base sizes of respondents (272 for acquisitive crime in 2012/13) and as a consequence, there is less certainty around estimates. The uncertainty around the changes in this subgroup (as shown by the upper and lower confidence limits), both in the short and medium term, limit the conclusions that can be drawn when comparing the SCJS and recorded crime in the acquisitive crime subgroup.

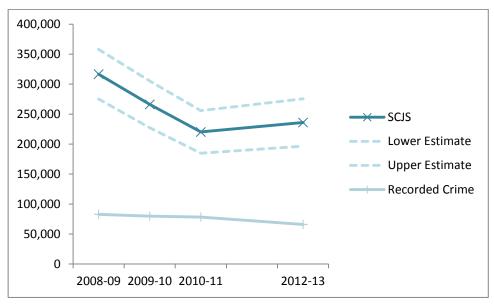
#### 4.3 Trends in Violent Crime

Table 4.3 Violent crime comparable subset, 2008/09 to 2012/13

					Percentage Change			
	2008/09	2009/10	2010/11	2012/13	2008/09- 2009/10	2009/10- 2010/11	2010/11- 2012/13	2008/09- 2012/13
Recorded Crime	82,855	79,769	78,263	66,076	-4%	-2%	-16%	-20%
SCJS Crime	317,000	266,000	220,000	236,000	-16%	-17%	7%	-25%
Base	622	493	357	<i>34</i> 3				

Note: Statistically significant SCJS changes highlighted in bold.

Figure 4.4 Recorded crime and SCJS estimates in the violent crime category, 2008/09 to 2012/13



Sources: SCJS, Police recorded crime.

Between 2010/11 and 2012/13, recorded violent crime figures in the comparable category have fallen by 16%. There is no significant change in SCJS violent crime estimates between 2010/11 and 2012/13 (Table 4.3). Table 4.3 highlights that none of the changes in violent crime estimates between adjacent survey sweeps are statistically significant. Violent crime estimates are based on a small number of respondents (343 in the 2012/13 survey) who had disclosed experiences of violent crime in the survey. The SCJS is often better able to detect changes in trends over longer timescales. Table 4.3 shows that there is greater certainty around cumulative changes in violent crime estimates in the medium-term. Therefore, we are able to compare those sort of trends between SCJS estimates and recorded crime figures with more confidence. Between 2008/09 and 2012/13, the 25% decrease in violent

crime is a statistically significant change, and consistent with the 20% decrease in recorded violent crime for the equivalent time period.

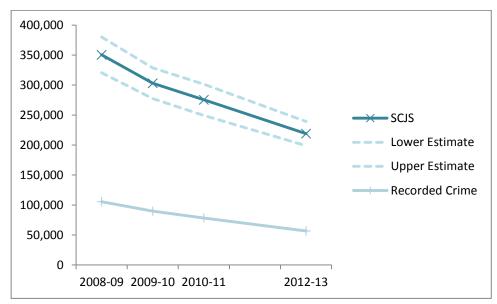
#### 4.4 Trends in Vandalism

Table 4.4 Vandalism crime comparable subset, 2008/09 to 2012/13

					Percentage Change			
	2008/09	2009/10	2010/11	2012/13	2008/09- 2009/10	2009/10- 2010/11	2010/11- 2012/13	2008/09- 2012/13
Recorded Crime	105,519	89,813	78,376	56,752	-15%	-13%	-28%	-46%
SCJS Crime	350,000	303,000	275,000	219,000	-14%	-9%	-20%	-37%
Base	1,515	1,322	954	760				

Note: Statistically significant SCJS changes highlighted in bold.

Figure 4.5 Recorded crime and SCJS estimates in the vandalism category, 2008/09 to 2012/13



Sources: SCJS, Police recorded crime.

Between 2010/11 and 2012/13, recorded vandalism has fallen by 28% and SCJS estimates have fallen by 20%, a statistically significant change. In the medium-term, both recorded crime figures and SCJS estimates have been on a downward trend (a decrease of 46% and 37% respectively). This change in survey estimates over the medium-term is also statistically significant at the 95% level. Compared to the violent crime and acquisitive crime groups, vandalism estimates are based on larger samples of respondents (Table 4.4). The associated increased certainty around changes in the vandalism subgroup mean that there is greater evidence to make such comparisons between trends in recorded crime figures and SCJS estimates.

### 4.5 Reporting to the Police

Police recorded crime statistics are sensitive to changes in public reporting practice and police recording practices. This is because not all crimes are reported to the police and, of those that are, not all incidents that are reported to the police are recorded as crimes. This results in a difference between police recorded crime statistics and SCJS estimates.

SCJS respondents are asked whether the police 'came to know about' the crime, either by them or somebody else. This allows comparisons to be made between crime estimated to have been reported to the police in the SCJS, and police recorded crime data. Although it is not possible to determine on an individual basis whether a crime that the police 'came to know about' was captured in police recorded crime data, this type of analysis can give an indication of the level of crime that goes unreported, and the broad relationship between police recorded crime figures and SCJS estimates. Making this comparison is a way of assessing the relationship between the SCJS and police recorded crime data.

The following analysis considers this relationship in the comparable crime subset. It is important to note that, as a survey, the SCJS can only provide estimates of crimes reported to the police, not precise figures. It is not possible to match SCJS microdata (i.e. the individual records of survey respondents) to police recorded crime records. Therefore, it is not possible to determine whether a crime that a respondent said they reported to the police actually appeared on a police incident log and, if so, to identify how it was actually recorded. These and other factors outlined earlier in section 3 of this report mean that crime estimated to be reported to the police can only be broadly, rather than directly, compared to police recorded crime data. For example, a survey respondent may claim to have reported a crime to the police when they had not. Therefore, we would not expect estimates of the crime reported to the police and the level recorded by the police to be equal. In light of this, the methods of analysis presented in this section are more suitable for assessing this relationship and variation over time rather than, for example, assessing with confidence the absolute level of crime estimated to have been reported but not recorded within each survey.

800,000 700,000 SCJS estimates of 600,000 unreported crime 500,000 ■ SCJS crimes estimated to 400,000 be reported to the police, but not recorded 300,000 Police recorded crime 200,000 100,000 2008-09 2009-10 2010-11 2012-13

Figure 4.6 Levels of unrecorded and recorded crime 2012/13

Sources: SCJS, Police recorded crime.

Figure 4.6 presents the level of unreported crime in the comparable crime category. Figures from the 2012/13 SCJS indicate that of the 527,000 crimes in the overall comparable subset, around 232,000 incidents (44%), were estimated to have been reported to police. In 2012/13, the police recorded 144,662 crimes in the comparable category. Overall, it can also be estimated that around 27% of the total comparable crimes estimated by the SCJS (that is reported and non-reported crime) were recorded by the police in 2012/13. In addition, this analysis estimates that as a proportion of all SCJS comparable crimes, the number of comparable crimes estimated to have been reported to the police and not recorded by the police, varied from 9% (2009/10) to 17% (2012/13). However, it is again important to note, as set out above, that such comparisons are based on survey estimates and as such are broadly, rather than directly, comparable.

Examining the ratio of police recorded crime to the volume of SCJS crime estimated to have been reported to the police can also help to assess the relationship between the two sources. This report presents this analysis in two ways:

- Method 1: Comparing the biennial SCJS to annual recorded crime figures.
- Method 2: Comparing the biennial SCJS against two financial years of averaged police recorded crime data. For example, comparing the 2008/09 survey data against recorded crimes data from the 2007/08 and 2008/09 financial years, over which the respondents' recollection of crimes in the 2008/09 survey are collated.

0.9 8.0 0.7 0.6 0.5 ■ Method 1 0.4 Method 2 0.3 0.2 0.1 0 2008/09 2009/10 2010/11 2012/13

Figure 4.7 Comparing methods of calculating ratio between SCJS police recorded crime and SCJS crime estimated to have been reported to the police

Note: Annex D [insert hyperlink] presents the data used to derive figure 4.7, with estimated confidence intervals.

Method 1 shows annual recorded crime figures compared to estimates of crime reported to the police by the SCJS (across an effective 23 month SCJS fieldwork period). The ratio between police recorded crime and SCJS crime estimated to have been reported to the police was highest in 2009/10. In 2009/10, the SCJS estimated that of the 630,000 crimes in the comparable category, 252,000 (40%) comparable crimes were estimated to have been reported to the police, while also in 2009/10 the police recorded 195,728 crimes. It can therefore be estimated that around 78% of the crime estimated to have been reported to the police in the SCJS was captured in police statistics. By applying this method of comparison, it is notable that there is some variation in the resulting ratio over the four sweeps of the survey (Figure 4.7).

Method 2 addresses the challenge in making direct comparisons between sources that cover different time periods by comparing SCJS data (spanning a 23-month respondent recall period) against two financial years of averaged police recorded crime data. The results of this work are generally consistent with the results of the initial analysis in Method 1. However, comparing the two methods (Figure 4.7) highlights a *lag effect*, suggesting that the difference between recorded crime and SCJS crime estimated to be reported to police is likely to be less than that outlined in the results from the Method 1 analysis. By using this adjusted calculation approach during a period of time when overall crime is reducing, the proportion of comparable recorded crimes is estimated to have fluctuated between 71% and 82% of the total SCJS comparable crime (as compared to 62% and 78% respectively using the approach outlined in Method 1).

However, with only four survey sweeps available for analysis, it is not possible at this stage to use the results of this analysis to make any definitive statements changes in this ratio over time.

Finally, to help validate this alternative method, it is notable that repeating the analysis in Section 4.1 with this averaging of relevant recorded crime data across financial years finds that while SCJS crime is estimated to have fallen by 28% between 2008/09 and 2012/13, averaged recorded crime decreased by 26% (compared to 33% in the original analysis in Table 4.1).

### 5. Conclusions and Ways Forward

This report has brought together the two main sources of crime statistics in Scotland: the Scottish Crime and Justice Survey and police recorded crime statistics. Each source provides an essential, complementary measure of crime. Estimates produced by the SCJS are consistently higher than the number recorded by the police. For example, the latest figures from the SCJS show that there were an estimated 815,000 incidents of crime against adults in Scotland in 2012/13, while the Scottish police recorded 273,053 crimes. This difference shows that, for many reasons, not all crime comes to the attention of the police. On the other hand, the SCJS is able to capture crimes that are not reported to the police. Of the 815,00 incidents of crime captured by the survey, 39% were reported to the police. This difference emphasises the important need for the two sources of crime statistics to capture a fuller picture of crime in Scotland.

Having two sources, while necessary to present a comprehensive representation of crime in Scotland, can create confusion, especially if they each show a different trend. The SCJS is published biennially, whereas recorded crime data is released annually. This report has sought to address potential confusion arising out of having two different, but complementary, sources of crime statistics by bringing together the SCJS and recorded crime statistics, and explaining the key strengths and limitations of each source, as well as the differences between them.

The SCJS and police recorded crime each feature relative strengths and limitations. Police recorded crime is able to capture both a wider population and a wider set of offences, but only where the crime is reported to the police. Furthermore, police recorded crime figures can provide data for low level geographies. However, police recorded crime figures are sensitive to changes in public reporting and police recording practices. The SCJS is able to capture crime that does not come to the attention of the police. The SCJS is also able to provide more information about the victims and perpetrators of crime, offering the capacity to analyse victimisation against demographic variables (such as age and gender), as well as collecting data on public attitudes and perceptions (such as fear of crime, views on the criminal justice system). As SCJS estimates are survey measures they are subject to a degree of uncertainty.

Such differences between the two sources create challenges when making direct comparisons. Particularly as they each cover slightly different time series, populations and crime types. However, comparisons can be made by examining a comparable subset of crimes which are covered by each source. Comparisons are made in three broad crime groups: vandalism, acquisitive crime and violent crime. In 2012/13, the latest year that data is available for both sources, around two thirds

(527,000%) of the 815,000 crimes measured by the SCJS can be compared with police recorded crime statistics.

In light of the analysis presented in this report, it is important to consider what this can tell us about the relationship between SCJS estimates and recorded crime figures at this stage. In summary, without consistent data beyond 2008/09, and with uncertainty in the changes between survey sweeps, we are unable to identify with confidence trends in patterns of crime in the comparable subset.

Monitoring the impact of any methodological changes on estimates is important as such changes can sometimes create short-term fluctuations in survey estimates. However, the SCJS has had a relatively consistent methodology over the four sweeps of the survey since 2008/09:

- The SCJS has maintained a relatively high response rate, achieving over 65% across the four sweeps of the survey. In 2012/13, the survey achieved a 67.7% response rate.
- There has been no change in survey contractor which could have impacted on the consistency of the approach, for example to data collection or offence coding.
- There have been changes to the sample design, however, these are not thought to have introduced bias to estimates.
- It is unlikely that levels of 'social desirability' in providing certain survey responses has changed over time, such as more respondents saying they have reported crime to the police when they hadn't.

(Annex A provides a fuller discussion of how quality is maintained in the SCJS and recorded crime).

There is uncertainty around changes in the short-term, particularly around changes between adjacent SCJS sweeps, that limit the conclusions that we can draw from analysis at this stage. For example, the change in overall comparable crime between 2010/11 and 2012/13 is not statistically significant (Table 4.1). This issue is heightened when breaking the comparable crime group down into its constituent crime groups. The violent and acquisitive crime estimates, in particular, are drawn from small sample sizes. As a result, there is less certainty around changes between sweeps in these groups. This is emphasised in Tables 4.2 and 4.3 which show that changes between survey sweeps in these groups are often not statistically significant. On the other hand, vandalism is drawn from a larger sample size and shows SCJS estimates following a similar trend to recorded figures.

In addition, it is notable that consistent comparable crime data are only available for a relatively short time scale. With only four sweeps of the SCJS providing a consistent comparable subset, it is difficult to make confident assertions about trends. An important strength of the SCJS is its ability to track trends in crime over time (Table 3.1). The SCJS is often better able to identify significant changes over longer time-scales. This is evident in Table 4.3 which shows significant changes in the violent crime category since 2008/09. Therefore, further analysis over future years is needed to identify trends in the comparable subset that, in time, will help to further assess the relationship between these two sources of crime data.

## **ANNEX A: Ensuring Quality in Crime Statistics**

National Statistics are produced to high professional standards set out in the <u>Code of Practice for Official Statistics</u>. They undergo regular quality assurance reviews to ensure that they meet customer needs and are produced free from any political interference. This section outlines the external scrutiny that national crime data is subject to in Scotland to ensure the quality of each data source.

#### **Police Recorded Crime**

A full range of quality assurance information will be provided in the Recorded Crime Framework of Assurance (DN – insert link). At an overall level crime recording is governed by the Scottish Crime Recording Standard (SCRS) and the Counting Rules<sup>16</sup>. These provide a framework for deciding when an incident should be recorded as a crime, what type of crime should be recorded and how many crimes should be counted.

The SCRS was introduced in April, 2004 to respond to issues in police recording practices identified by HMICS, Audit Scotland and in the Scottish Crime Survey, including a lack of consistency between Scottish forces, unreliability of data and the potential under-recording of crime<sup>17</sup>. The SCRS was updated in 2007 to take account of recommendations made in a HMICS review, and was incorporated into Police Scotland standard operating procedure for crime recording in April, 2013.

The aim of the SCRS is to provide a more victim-orientated approach by removing the need for a victim to provide corroborative evidence of a crime having been committed before it is formally recorded. The SCRS was established to develop greater uniformity in the process, which, in turn, enhances public confidence in the police service.

Compliance with the SCRS lies with the Chief Constable and is discharged on a daily basis by crime registrars. Crime registrars advise police officers on day-to-day crime recording issues, as well as carrying out regular audits of crime records. The crime registrar has the overall authority on whether or not to record a matter as a crime, and which classification should be applied. Crime registrars do not have responsibility for reducing crime levels. The independence of the crime registrar is important in ensuring transparency in the process.

Inevitably, however, there may be a degree of subjective interpretation when making crime recording decisions. To support consistency in implementing the SCRS and the Counting Rules, a national forum for crime registrars, the Scottish Crime

<sup>&</sup>lt;sup>16</sup> Read the full Scottish Crime Recording Standard and Scottish Government Counting Rules here.

<sup>&</sup>lt;sup>17</sup> HMICS (2005) Meeting the Standard: A Thematic Inspection of the Scottish Crime Recording Standard

Registrars' Group (SCRG), was established. This group allows crime registrars from across Scotland and Scottish Government representatives to discuss matters arising from the application of the SCRS and the Counting Rules, as well as maintaining and updating the Counting Rules. This approach helps to maintain consistency in the way that the SCRS is applied across Scotland. Until 2013, each of Scotland's eight police forces had its own crime registrar. Following the creation of a single police service, Police Scotland, a new crime registrar structure was put in place, with a national crime registrar and three regional crime registrars.

To ensure that the standards set by the SCRS are being maintained in practice, incident and crime recording is also subject to audit and assurance reviews by HMICS. Regular audits of crime recording are a required by the SCRS to verify that incidents are properly recorded and that recorded crimes are counted and classified correctly. These reviews are published and, as well as providing the public and key stakeholders with information about the validity of crime statistics, highlight areas for improvement. The latest review of this kind was carried out between July and August, 2013 and published in December, 2013<sup>18</sup>, shortly after the establishment of Police Scotland. Plans for future audit and assurance reviews of crime recording are discussed in the HMICS annual Scrutiny Plan 2014-15<sup>19</sup>. However, it should be noted that a Crime Audit 2014 was undertaken by HMICS in Autumn 2014. HMICS anticipate publishing a report of their findings in late 2014<sup>20</sup>.

Recorded crime statistics (and the Scottish Crime and Justice Survey) are also subject to assessment by the UK Statistics Authority (UKSA), to ensure that the statistics meet the professional standards set out in the <a href="Code of Practice for Official Statistics">Code of Practice for Official Statistics</a>. The code of practice covers a range of criteria, one field being the quality of statistics. The <a href="UKSA">UKSA</a> is an independent body operating at arm's length from government, as a non-ministerial department. As such, the UKSA provides independent scrutiny of recorded crime and SCJS statistics through monitoring and assessment.

### **Scottish Crime and Justice Survey**

The quality of the SCJS is recognised by its designation as 'National Statistics' by the UKSA. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

http://www.hmics.org/publications/hmics-scrutiny-plan-2014-2015

<sup>&</sup>lt;sup>18</sup> Prior to this, a <u>Crime Audit</u> was conducted in 2011.

A copy of the Terms of Reference of the HMICS Crime Audit 2014 is available here.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed. A UKSA assessment carried out in 2009 concluded that the statistics produced are consistent with the code of practice for official statistics<sup>21</sup>.

The SCJS is commissioned by the Scottish Government and conducted by an independent social research organisation using skilled interviewers to collect data from a sample of respondents. The interviewers have no vested interest in the results of the survey. Therefore, in comparison to recorded crime data which are, for example, susceptible to changes in public reporting practices, SCJS data represents an independent and complementary source of national crime data.

The SCJS uses a random probability sample method, designed to be representative of the population of households in Scotland and adults aged 16 or over living in those households. The Royal Mail's small user Postcode Address File (PAF) is used as the sample frame for the address selection. The PAF is currently by far the most comprehensive and reliable sample frame available in the UK for surveys of this kind. Interviews are conducted across the whole of Scotland, excluding only some of the smallest inhabited islands.

Only one adult is interviewed in each household. As the majority of households contained more than one adult (aged 16 or more), details of all eligible adults are first collected by the interviewer before randomly selected one adult for interview to avoid any bias in selection, and once a selection was made, no substitutions were permitted under any circumstances.

Fieldwork assignments by area across Scotland were spread out across the 12 month fieldwork period, with a target to conduct equal numbers of interviews across each of the 12 months. This avoided particular concentrations of interviews in a given area within a short period of time, or a concentration of interviews within a particular period of time.

Interviews are conducted face-to-face in the respondents' homes and administered by specially trained professional interviewers using Computer Assisted Personal Interviewing (CAPI). The majority of respondents to the self-completion section completed it using Computer Assisted Self-Interviewing (CASI), entering their answers directly on to the interviewer's tablet PC themselves. This ensured greater confidentiality when answering sensitive questions or those on illicit behaviour.

Weighting procedures for survey data are required to correct for unequal probabilities of selection and variations in response rates from different groups. The procedures for the implementation of the weighting methodology were developed by

<sup>&</sup>lt;sup>21</sup> Read the full assessment here.

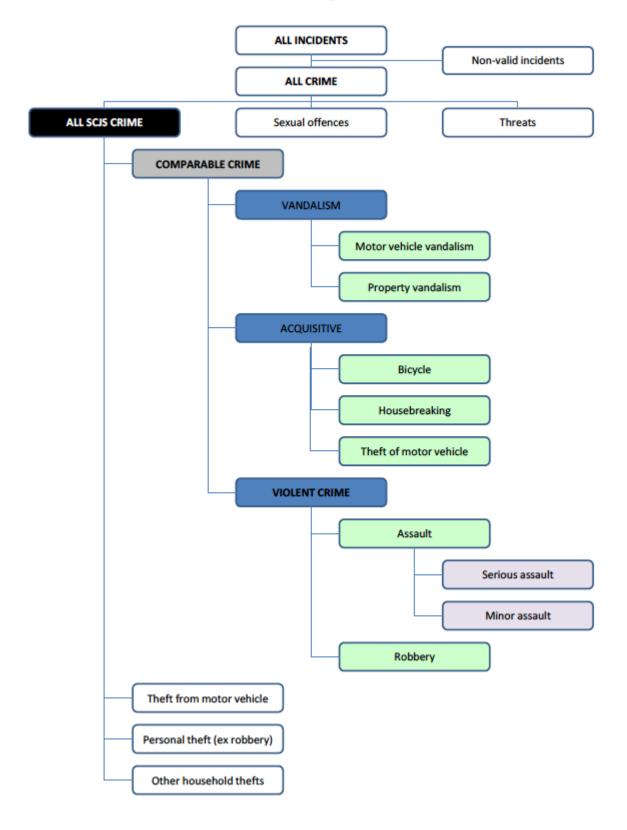
the Scottish Government working with the Methodology Advisory Service at the Office for National Statistics. The weighting procedures for the SCJS use calibration weighting to correct for non-response bias.

The SCJS gathers information from a sample rather than from the whole population and, although the sample is designed carefully to make allowances for this, survey results are always estimates, not precise figures. This means that they are subject to a level of uncertainty. More detail about the uncertainty in the statistics presented here and other information related to the quality of the SCJS data is provided in the SCJS Technical Report.

The SCJS has maintained a relatively high response rate, achieving over 65% across the four sweeps of the survey. In 2012/13, the survey achieved a 67.7% response rate.

To assign crimes identified by the survey correctly (i.e. to closely match the crime code that the police would have assigned were it to have been recorded as a crime), coding is carried out at the end of each month by the social research organisation that conducts the survey and by the Scottish Government, independent of one another, with reference to a shared coding manual with specifies the nature of each type of offence covered by the survey. Any differences are reviewed closely before being finalised. A sample of the coding is also assessed by the Scottish Government supervisor to ensure consistency and robustness in coding practice.

# **ANNEX B: Comparable crime groups**



### **ANNEX C: A UK Comparison of Crime Statistics**

### **Crime Statistics in England and Wales**

The Office for National Statistics (ONS) publishes quarterly figures on the level and trends in crime in England and Wales. These quarterly bulletins bring together the two main data sources of crime: police recorded crime data and the findings of the Crime Survey for England and Wales (CSEW)<sup>22</sup>. The bulletins also draw on a range of supplementary data sources (including the commercial victimisation survey and recorded non-notifiable offences). The rationale given for drawing on multiple data sources is to present a more comprehensive picture of crime<sup>23</sup>. In addition to the quarterly publications, a series of thematic 'focus' reports, that also bring together recorded crime, CSEW data and supplementary sources of crime data, are released annually, covering a range of crime and justice topics such as Violent Crime and Sexual crimes and Property Crime.

Statistics on crime in England and Wales were not always published together and previously the results of the predecessor of the CSEW, the British Crime Survey (BCS), and recorded crime statistics were released separately.

The <u>Simmons Review</u> of Crime Statistics<sup>24</sup>, published in July 2000, suggested that there was a lack of trust in crime statistics in England and Wales and outlined a requirement that the Home Office publish an annual 'picture of crime' that brings together recorded crime data, the BCS and other necessary sources of information. Meeting this requirement meant that the BCS became a continuous survey, with results released on an annual basis (until 2001 the BCS had been carried out periodically). Following this review, crime survey results and recorded crime data was first brought together in a publication entitled '<u>Crime in England and Wales 2001/02</u>'.

The decision in England and Wales to publish police recorded crime data alongside crime survey data has continued to generate debate. The <u>Smith Review</u> of crime statistics, published in 2006, highlighted that some commentators have suggested that publishing both sources together creates further confusion, particularly when each source indicates a differing trend. Responding to these concerns, the authors of the review underscored the importance of acknowledging and addressing the relationship between the two data sources, suggesting that this is important in enhancing public understanding, particularly when they show different trends. The

<sup>&</sup>lt;sup>22</sup> Previously the British Crime Survey (BCS)

http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/crime-and-iustice/index.html

<sup>&</sup>lt;sup>24</sup> Read the full review here.

review recommended that the Home Office continue to publish recorded crime data and the BCS together.

More recently, the <u>Casey Review</u>, published in 2008, indicates that the public remain distrustful of official statistics on crime in England and Wales. The review states that,

Confusion seems to spring from the use of different statistics and also from the dismissal and undermining of the statistics by so many people, including professionals in the Criminal Justice System. It is entirely understandable, then, that the public feel concerned and confused' (Casey, 2008, pg. 61).

The use of different statistics for different purposes was identified as a key factor in causing confusion and undermining trust in crime statistics. While ONS have attempted to publish the statistics together, and explain the differences between them, such detailed explanations may not be used by the media or other communications.

There are important differences between the CSEW and the SCJS that create issues in straightforwardly bringing together the two sources of crime statistics in the same way in Scotland. Primarily, the CSEW is carried out annually, while the SCJS is biennial. Furthermore, the CSEW has a much larger sample size (35,000 households in 2014) than the SCJS (12,000 in 2012/13). Smaller overall sample sizes create more uncertainty around estimates on crime subgroups (e.g. violent crime) in Scotland, particularly in short-term trends between survey sweeps.

#### **Crime Statistics in Northern Ireland**

Like Scotland, the two main sources of crime statistics in Northern Ireland are published separately.

Recorded crime figures are published in a monthly bulletin. In 2014, the Police Service of Northern Ireland (PSNI) published a bulletin providing a series of police recorded crime data, by financial year, from 1998/99 to 2013/14, allowing users to monitor long-term crime trends.

The <u>Northern Ireland Crime Survey (NICS)</u> is published by the Department of Justice (DoJ) as an alternative, complementary measure of crime. The survey is representative, collecting the experiences and perceptions of crime of approximately 4,000 adults living in private households throughout Northern Ireland.

The survey was initially carried out on an ad-hoc basis, before becoming biennial in 2001. In January, 2005 fieldwork for the NICS moved to a continuous basis and the sample size was increased from 3,000 to 4,000. These changes were put in place to

facilitate the monitoring of annual trends and more regular direct comparison with England and Wales. Increasing the sample size has increased the accuracy of headline results and generated more robust analyses for various socio-demographic characteristics.

A series of bulletins are published annually, presenting statistics on the Experience of Crime; Perceptions of Crime; Perceptions of Policing, Justice and Organised Crime; Night-Time economy; Domestic Violence; and Drug Misuse.

Furthermore, <u>Quarterly Updates</u> are published, presenting the most recent statistics from the NICS on the level of public confidence in policing and the criminal justice system in Northern Ireland as well as public perceptions of anti-social behaviour.

Although published separately, high-level comparisons between police recorded crime and the NICS are made in the annual <u>Experience of Crime: Findings from the 2012/13 Northern Ireland Crime Survey</u>.

#### **Crime Statistics in Scotland**

Returning to Scotland's crime data, in July 2014, The UKSA published an Assessment of the compliance of Recoded Crime statistics with the Code of Practice for Official Statistics<sup>25</sup>. The assessment process involved an appraisal of the production of recorded crime statistics, including web searches and meetings with the producers of data at the Scottish Government.

Part of the assessment also involved a consideration of the views of users of recorded crime statistics. The UKSA gathered the views of 31 users of Recorded Crime<sup>26</sup>. Although potentially not wholly representative of wider views, a key aim of this approach was to gain a broad insight of the extent to which users feel that the statistics meet their needs.

The UKSA assessment found that publishing recorded crime data and the results of the SCJS separately, potentially presenting diverging messages, could lead to confusion and public concern on the trustworthiness of the data. Furthermore, the UKSA suggested that releasing two separate publications increases the risk of the misinterpretation of the data, requiring users to have the ability to distinguish between recorded crime and crime experienced by the adult household population. As a consequence, the UKSA has required that the Scottish Government 'bring the analysis and commentary of the two main sources of crime statistics together into a single published report and present a coherent summary of crime based on both data sources' (Requirement 11, para 3.21).

<sup>&</sup>lt;sup>25</sup> Access the full assessment <u>here</u>.

A breakdown of respondents is available in the assessment report.

### ANNEX D: Reporting to the police – analysis and data

As set out in section 4.5 of this report, examining the ratio of police recorded crime to the volume of SCJS crime estimated to have been reported to the police can also help to assess the relationship between the two sources. This report presents this analysis in two ways:

- **Method 1**: Comparing the biennial SCJS to annual recorded crime figures.
- Method 2: Comparing the biennial SCJS against two financial years of averaged police recorded crime data. For example, comparing the 2008/09 survey data against recorded crimes data from the 2007/08 and 2008/09 financial years, over which the respondents' recollection of crimes in the 2008/09 survey are collated.

The AD.1 presents the data used to derive figure 4.7, with estimated confidence intervals.

Table AD.1 - Ratio of police recorded crime to SCJS crime estimated to have been reported to the police (confidence intervals in brackets)

	Method 1	Method 2
Ratio of police recorded crime to SCJS reported crime (confidence interval)		
2008/09	0.70 (0.65 - 0.76)	0.72 (0.67 - 0.78)
2009/10	0.78 (0.72 - 0.84)	0.82 (0.76 - 0.89)
2010/11	0.72 (0.66 – 0.78)	0.74 (0.68 - 0.81)
2012/13	0.62 (0.58 – 0.68)	0.71 (0.65 - 0.77)

<sup>1.</sup> The confidence intervals around these ratios have been estimated using the relative uncertainty around the overall comparable crime group.