

Has policing reform in Scotland led to a drop in the crime clear up rate?

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Summary

Clear up rates are often presented as a measure of how 'effective' police forces are in solving crimes. In Scotland, the clear up rate for all crime has been around 50% for the last 10 years. However, this varies by crime type. For example, the clear up rate for 'fire raising and vandalism' is about 25% compared to almost 100% for drug possession and handling offensive weapons. Clear up rates also vary by location. For example, they are above average in the Scottish Islands but below average in the City of Edinburgh. And they vary over time. For example, clear up rates for violent crimes increased by a third over the last 10 years; while clear up rates for sexual crimes fluctuated up and down. **But there is no evidence that the creation of Police Scotland has led to a sustained or systematic drop in clear up rates.** There were lower than average clear up rates for some crime types in some specific years. For example, crimes associated with prostitution, fraud, and drunk and disorderly behaviour had lower than average clear up rates in 2016/17; and vandalism had a lower than average clear up rate in 2014/15. However, the clear up rate for handling offensive weapons was higher than average in 2013-14. Many factors can impact on clear up rates, some of which are under the control of the police and some of which are not. These include changes in the definition of 'clear up rates', changes in police activity around solving crimes, change in the number of crimes, changing the solvability of crimes, and change in the strategic priority given to certain crime types. Further research would be needed to say whether any of these factors have impacted on clear up rates in Scotland. Public confidence in the police to solve crime did fall by 2% in the two years following police reform, but it increased again to an even higher level in 2016/17. Overall, it can be concluded that the creation of Police Scotland has had little, if any, impact on crime clear up rates. Furthermore, these rates are not a good measure of police effectiveness and are unlikely to be a driver of public attitudes towards the police.

Introduction

Every year in the UK, clear up rates are published to demonstrate how 'effective' police forces are in solving crimes. In the media, high or increasing clear up rates are commended, while low or declining rates are met with criticism and derision. Headlines such as "Flops 'n Robbers: Shocking figures reveal cops across Britain solve just one in ten burglaries" (The Sun 1.4.17) are not uncommon. As Police Scotland reaches its five year anniversary, it can boast a 32% fall in the number of crimes and offences recorded since it began. However, there has been media speculation that force restructuring has led to a decline in clear up rates, as illustrated by the Sunday Express's headline that "Police Scotland crime clear-up rate slumps to new low" (27.9.17). So, what's the truth behind the facts and figures?

What is a 'clear up rate'?

First, it is important to understand what we mean by a 'clear up rate'. In Scotland, a crime is cleared up if there is sufficient evidence available under Scots Law to justify *consideration* of criminal proceedings. In other words, a crime can be cleared up even if nobody is formally charged or prosecuted. In some cases the case may not warrant prosecution because it is of such a minor level

that it is decided that prosecution would not be in the public interest. Alternatively, it may be inappropriate or impossible to take further action because of the age of the accused, the death of the accused or for various other reasons. In many cases, a crime is cleared up immediately because the offender is caught in the act. A crime cannot be said to be cleared up, however, if it is based on just a confession as this would not be considered sufficient on its own to justify a prosecution – it would need to be corroborated with other evidence.

In mathematical terms, the clear up rate is very simple: it is the number of crimes 'cleared up' in one financial year divided by the total number of crimes recorded in the same year, multiplied by 100 to give a percentage of crimes cleared up. It is possible to have a clear up rate greater than 100% because the number of crimes cleared up in any one year could, in theory, be larger than the number of crimes recorded (especially if you imagine that many of the crimes cleared up happened in the previous year). In reality, however, it is rare for clear up rates to get anywhere close to 100% for most crime types and – in Scotland – the total clear up rate for all crimes has tended to fluctuate around 50% for the last 10 years. So this means that for every two crimes recorded by Police Scotland, they are only likely to formally clear up one of them.

Do clear up rates vary?

Previous research has demonstrated that clear up rates vary significantly across different crime types and within the same crime type over time (Thanassoulis 1995). This latter point is supported by Figure 1, which shows the clear up rate for 'total crimes' and the individual clear up rates for six crime or offence categories in Scotland. It is very clear that the crime rate varies depending on the type of crime that is being dealt with. For example, only around a quarter of crimes that involve property destruction through fire raising or vandalism are cleared up; whereas, the clear up rates for some 'other crimes' – which includes drug possession, handling offensive weapons and crimes against public justice - is almost 100%.

Broadly speaking, it could be said that crimes against people (including sexual crime and non-sexual crimes of violence) and those that typically involve someone being caught in the act (including 'miscellaneous offences' such as public drunkenness, urinating in public and disorderly behaviour) are more likely to be cleared up than crimes that involve property theft or damage, although this would oversimplify the complexity of many crime cases recorded by the police.

Clear up rates have also been found to be highly variable both between different police forces and across command units within forces (Drake and Simper 2002). Data are no longer published for the old legacy police force areas; however, it is possible to examine differences in clear up rates across the Scottish Local Authorities. Looking at data for 2016/17, Figure 2 shows the difference in clear up rates to the Scottish average for each of the 32 Local Authorities. As can be seen, there is considerable variation across the country; however, only four Local Authorities were significantly different to the Scottish average. The Scottish Islands had significantly higher clear up rates than average (ranging from 17% higher for the Orkney Islands to 34% higher for the Shetland Islands); while the City of Edinburgh had a significantly lower clear up rate (15% below the national average). All the other Local Authorities were within normal limits of the Scottish average.

Figure 1: Clear up rate by crime group, 2007/8 to 2016/17

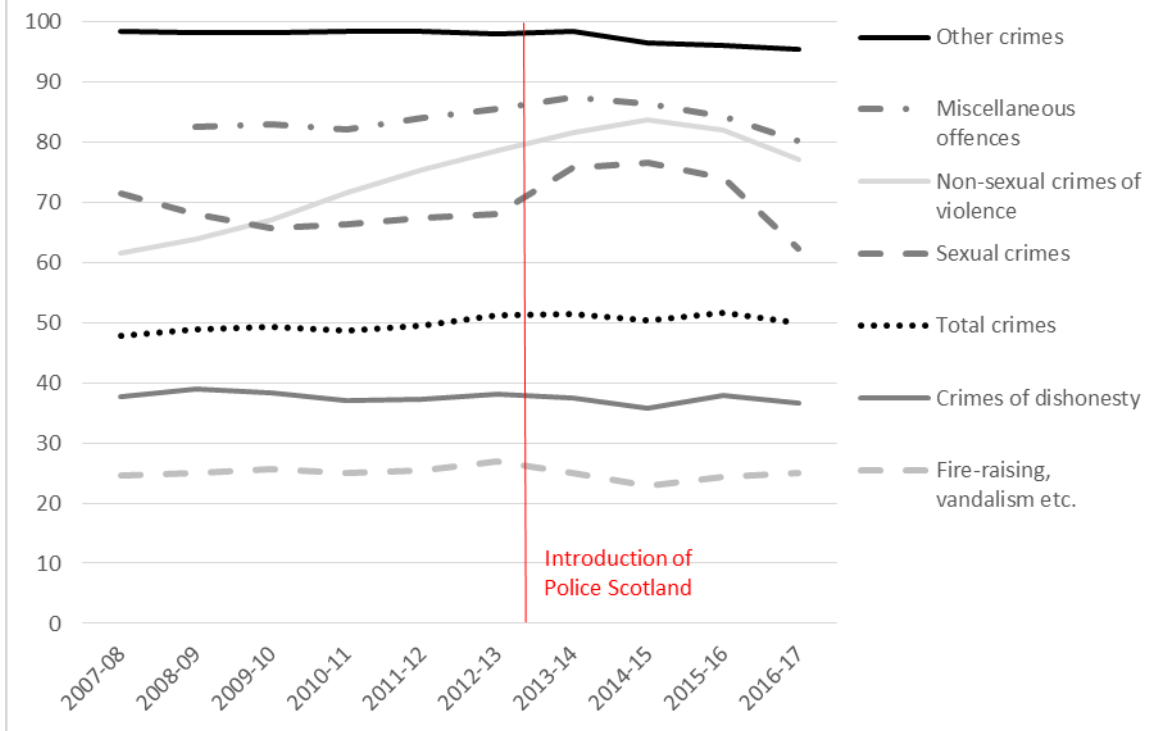
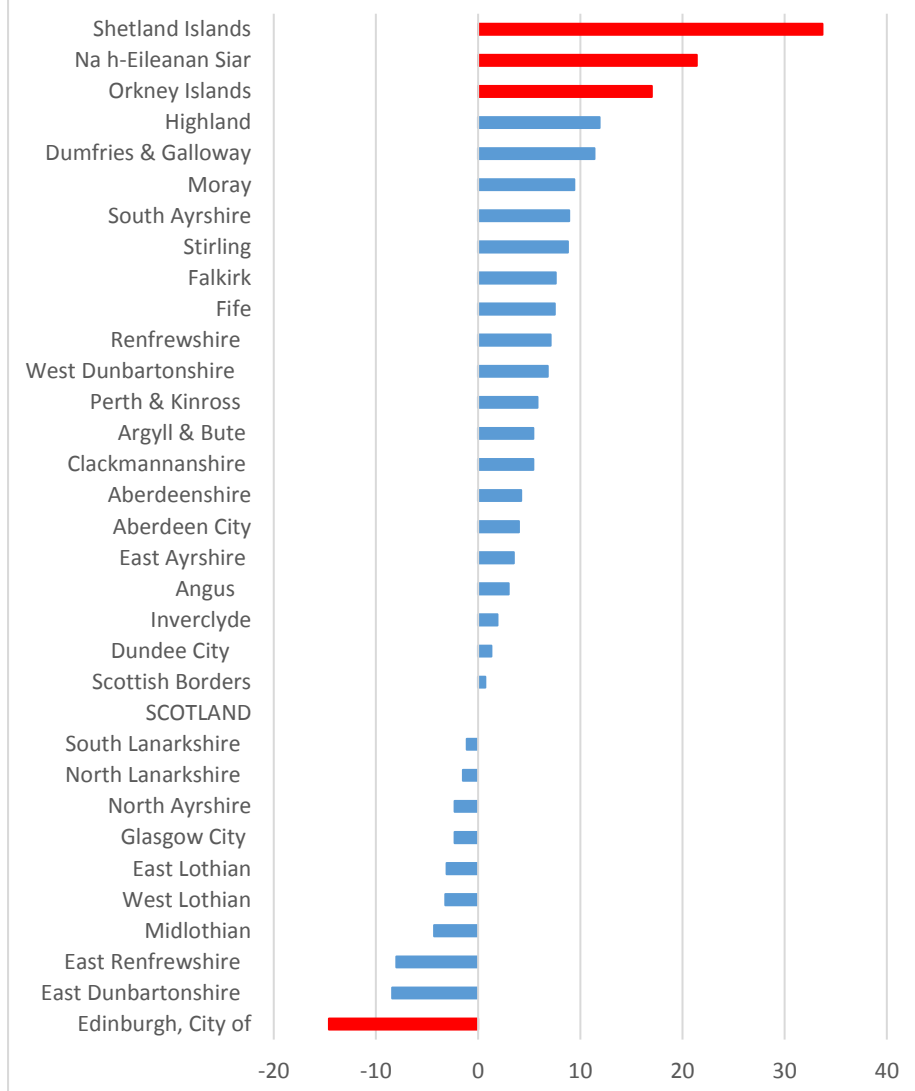


Figure 2: Clear Up rate for total crime by Local Authority - difference to the Scottish average



What crime types have seen the biggest changes?

Figure 1 shows that the biggest percentage change in clear up rates over the last 10 years has involved crimes of violence – both sexual and non-sexual. Between 2007/08 and 2014/15, the clear up rates for non-sexual crimes of violence (which include homicide, attempted murder, serious assault and robbery) increased by a third, from 62% to 84%, before falling back to 77% in 2016/17. This increase was mainly due to improvements in the clear up rate for robbery (which virtually doubled from 40% to 76%), but also attempted murder and serious assault cases (which rose from 61% to 79%). Almost all homicide cases in Scotland are cleared up, and that has not changed over time.

For sexual crimes, the clear up rates fluctuated between 65% and 70% from 2007/08 to 2012/13, then increased to 77% in 2014/15 before falling dramatically to 62% in 2016/17. The overall trend masks some underlying differences in specific crime types, however. The clear up rate for rape and attempted rape showed the most variation over time. This declined by a fifth, from 70% to 55% between 2007/08 and 2010/11, before rising to 76% in 2015/16 and then falling again to 60% in 2016/17. Other sexual crimes – such as sexual assault – showed far less of an initial decline in clear

up rates (from 68% in 2007/08 to 62% in 2012/13), but then increased to 77% in 2014/15, and fell again to 57% in 2016/17.

A note of caution, however! While the fluctuation in clear up rates for sexual and non-sexual crimes of violence appears greater than for other crime groups, the actual number of these crimes is much smaller. In fact, sexual and non-sexual violent crimes combined represent less than 5% of all crimes and offences recorded by the police in Scotland and, therefore, the clear up rates can be subject to greater fluctuation caused by relatively small changes in number.

While the other crime and offence groups have shown some change in clear up rates over the last 10 years, the overall levels have remained fairly constant and the relative positioning of these crime groups has not changed. However, there is evidence of fluctuation in the clear up rates both *before* and *after* the introduction of Police Scotland in 2013. So it is important to examine whether the changes after the amalgamation are significantly different from those that came before.

Was there significant change after police reform?

At a basic level, it is true to say that the clear up rates for all six crime groups were lower in 2016/17 (the most recent year for which data is available) than they were in 2012/13 (the year prior to police reform). The least difference was for non-sexual crimes of violence and crimes of dishonesty which were 1.4% lower; while the biggest difference was for sexual crimes which were 5.7% lower. However, this is a simplistic approach which doesn't adequately take account of the year to year variation in the clear up rates.

The best way to address this question is to work out the average clear up rate across a number of years and see whether any individual year varied significantly from that average. This was done by taking data for eight years – from 2009/10 to 2016/17 – and calculating the average clear up rate because the average is based on four years prior to police reform and four years after. The difference for each year to the average was then calculated, and analysis was conducted to see if the difference was statistically significant.

Using this approach, only one statistically significant change in clear up rates was found. This related to the crime group 'fire-raising and vandalism' which saw a decline in clear up rates in 2014/15 which was significantly larger than average. For every other crime group, across all eight years, there were no statistically significant differences, either before or after the introduction of Police Scotland.

There were some further significant differences when looking at the individual crime categories that contribute to the crime groups. However, these showed no clear or consistent pattern of increase or decline. For example, other violence (which includes child abuse, threats and abduction), crimes associated with prostitution, fraud, crimes against public justice, and drunk and disorderly behaviour all had significantly lower clear up rates in 2016/17 only compared with the eight year mean. Vandalism was significantly lower in 2014/15 compared to the eight year mean; whereas handling offensive weapons had a significantly higher clear up rate in 2013-14 compared to the eight year mean.

Overall, therefore, there were very few significant differences in the clear up rates during the last eight years, and any differences that were found did not suggest that there was a clear or consistent decline in clear up rates following the creation of Police Scotland in 2013.

Why do clear up rates vary over time?

According to the literature, there are many factors that impact on the variability of clear up rates (see Walker 1992), some of which are under the control of the police and some of which are not. For example, research in England and Wales found no clear causal relationship between the amount of police resources available and the clear up rate (Cameron 1987). The most common reasons fall into a number of categories as described below:

1. Change in the rules around recording and solving crimes – If there are changes in the rules around how crimes are recorded or how crimes are classified as having been cleared up, this could have an artificial effect on changes to the rates between years. However, there was no substantial change to the crime recording process or rules around clear up rates that would have impacted on the figures in Scotland during the period since police reform.
2. Change in police activity around solving crimes – If there is any change in the degree of police activity or effort that goes into solving crimes this could impact on the percentage of crimes that are cleared up. For example, if the police start acting on weaker evidence or have more resource to collect data for each crime (due to increased officer availability), then clear up rates could increase. Equally, if the police were required to tighten up restrictions on what counts as sufficient evidence or they started taking longer to detect crime (due to reduced officer availability or more time taken to process crimes and conduct the necessary paperwork) this could reduce clear up rates. During the period since Police Scotland was established, there was no substantial change to police officer numbers due to the SNP commitment to retaining numbers above a specific threshold. There could, however, have been a shift internally in the amount of police resource that was dedicated to solving crimes as opposed to dealing with other aspects of police business (for example, the increase in calls around issues of vulnerability and mental health which was reported by Police Scotland to the Scottish Parliament's Justice Committee in January 2017).
3. Change in the number of crimes – It could be argued that as crime reduces the clear up rate should increase, as the police have more time to solve those crimes that do occur. However, this is highly dependent on the nature of the crime that reduces (see 4, below) and the strain of other factors on police resources (see 3, above). Overall, there is little clear evidence of a direct and linear relationship between crime rates and clear up rates.
4. Change in the solvability of crimes – A change in the nature of crime over time (regardless of whether or not there is a change in the number of crimes) could have a direct impact on the clear up rate. If the crime mix becomes more difficult to solve, for example, clear up rates would be expected to fall. As noted above, crimes committed against people (such as violence and sexual crimes) and crimes that are typically uncovered by the police rather than relying on public reporting (such as drunkenness and public disorder) have higher clear up rates than crimes against property. However, even within crime types, serious crimes may be more likely to be cleared up than more trivial crimes – for example, because they have more buy in from witnesses or produce more or better evidence. In addition, there is increasing evidence that many crimes have shifted from on-street to on-line which may make them harder to solve. To establish whether this was the case would require much more detailed information on the changing nature of crime in Scotland.
5. Change in the priority given to certain crime types – If there is a strategic shift or a specific operational focus on certain types of crime rather than others there may well be an impact on clear up rates. For example, there has been an increase in recorded sexual crimes (many of which are historical in nature) which was partially created by the introduction of the

Sexual Offences (Scotland) Act 2009 and by the publicity around high profile cases which increased public reporting. Although the absolute numbers are small compared to many other crime types, the degree of time and resource required to solve such crimes (especially those involving multiple victims or crimes spanning many years) are likely to be extensive. Therefore, the degree of effort to solve one crime of a sexual nature would be far greater than the degree of effort required to solve one of a more straightforward nature. If police in Scotland dedicated a higher degree of priority to sexual crimes over recent years, this may have had an impact on the clear up rate for both this and other crime types.

Is there evidence of an impact on public confidence?

Even if there is no evidence of a sustained change in clear up rates since the establishment of Police Scotland, it is possible that the mere suggestion of a reduction through media reports (such as the headline from the Sunday Express described above) could impact on public confidence.

Interestingly, despite a huge amount of academic research on public confidence in the police, little if any of it has examined the impact of clear up rates. The Scottish Crime and Justice Survey found that the percentage of people who said they were 'very or fairly confident' in the ability of the police to solve crime fell from 64% in 2012/13 to 62% in 2014/15; however, in the 2016/17 Survey this had increased to 65% which suggests no long lasting impact on public attitudes towards the police. In addition, overall levels of public confidence in the police have increased by 8% over the last decade. Academic research on public confidence in the police indicates that this is complex and driven by a large range of different factors. So, if clear up rates in Scotland have had an impact on public confidence, it would be very difficult to disentangle their effect from many other potential causes.

Conclusion

There has been a certain degree of fluctuation in clear up rates over time in Scotland; however, there is no clear evidence to suggest that these have decreased significantly as a result of the amalgamation of the eight legacy forces into Police Scotland in 2013. Rather, it appears that where there have been substantial changes to the clear up rates (for example, for sexual crimes and non-sexual crimes of violence) these have occurred over a much longer period of time and are likely to have been impacted by factors that were not just related to the structure of policing or operational practice. There are a few specific types of crime that saw a greater than average drop in clear up rates in the period since 2013, but these were temporary 'spikes' rather than proof of a continued trend. Furthermore, there is no clear cut relationship between public levels of confidence in the police and clear up rates, so far more research would need to be done to establish the connection between these two factors. Clear up rates also vary significantly across different parts of Scotland, which is not easily explained by policing reform. Overall, clear up rates are likely to be influenced by a wide variety of factors, some of which relate directly to policing practice and others don't, which means that they are not a particularly good measure of police effectiveness in any case.

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