

Crime, Imprisonment, and its Cost in Scotland

Allison Catalano and Joy Samuel, June 2023

Over population in Scottish prisons has been emerging concern in recent years, has the Covid-19 pandemic exacerbated existing pressures leading to backlogs, longer wait times for prisoners on remand, and higher shares of prisoners waiting on appeal decisions.

Scotland has the highest imprisonment rate in Western Europe, with over 150 individuals per 100,000 population entering prison in 2021-2022.

By comparison, the majority of Western Europe had less than 100 individuals per 100,000 population in prison during the same time period. Spain – with the second-highest imprisonment rate – had less than 120 individuals in prison per 100,000 population (Eurostat, 2023).

Scotland's prisons are overwhelmingly populated with adult men. On average, 7,200 men are in prison in Scotland each day, with around 4% of the prison population female, and just under 3% of the population aged between 16 and 21.

The number of young people in Scottish prisons has fallen by around 8 percentage points since 2010, despite only accounting for around 5% of total Scottish population.

This represents a positive shift in which Scotland has clearly made efforts to reduce the number of young people in prisons. The ethnic makeup of the prison population roughly mirrors that of the Scottish population with around 95% of prisoners white, 2% both Asian and African, Caribbean or Black, with the remaining 1% of other ethnicities (Scottish Government, 2022d).

Whilst high prison populations have been a persistent issue across both the UK and Scotland over the past few decades, one of the emerging issues has been the high number of individuals placed on remand and awaiting trial.

In Scotland, around one quarter of the prison population each day is being held on remand, leading to significant cost pressures within the criminal justice system.

It is there unsurprising that Scotland spends heavily on its criminal justice system. However, it is not just economic cost of high prison populations, but also the societal costs such as the impacts of broken families and long-term suffering for victims of crime.

This perspective therefore explores the landscape, challenges, and costs of the criminal justice system in Scotland, by first providing an overview of how the criminal justice system works and then by examining problem areas. Finally, it examines how the costs of crime are assessed, with examples of data areas that are missing in a Scottish context.

Overview of the Criminal Justice System in Scotland

Understandably, the strain on criminal justice services is a key policy issue for both the UK and Scottish Governments.

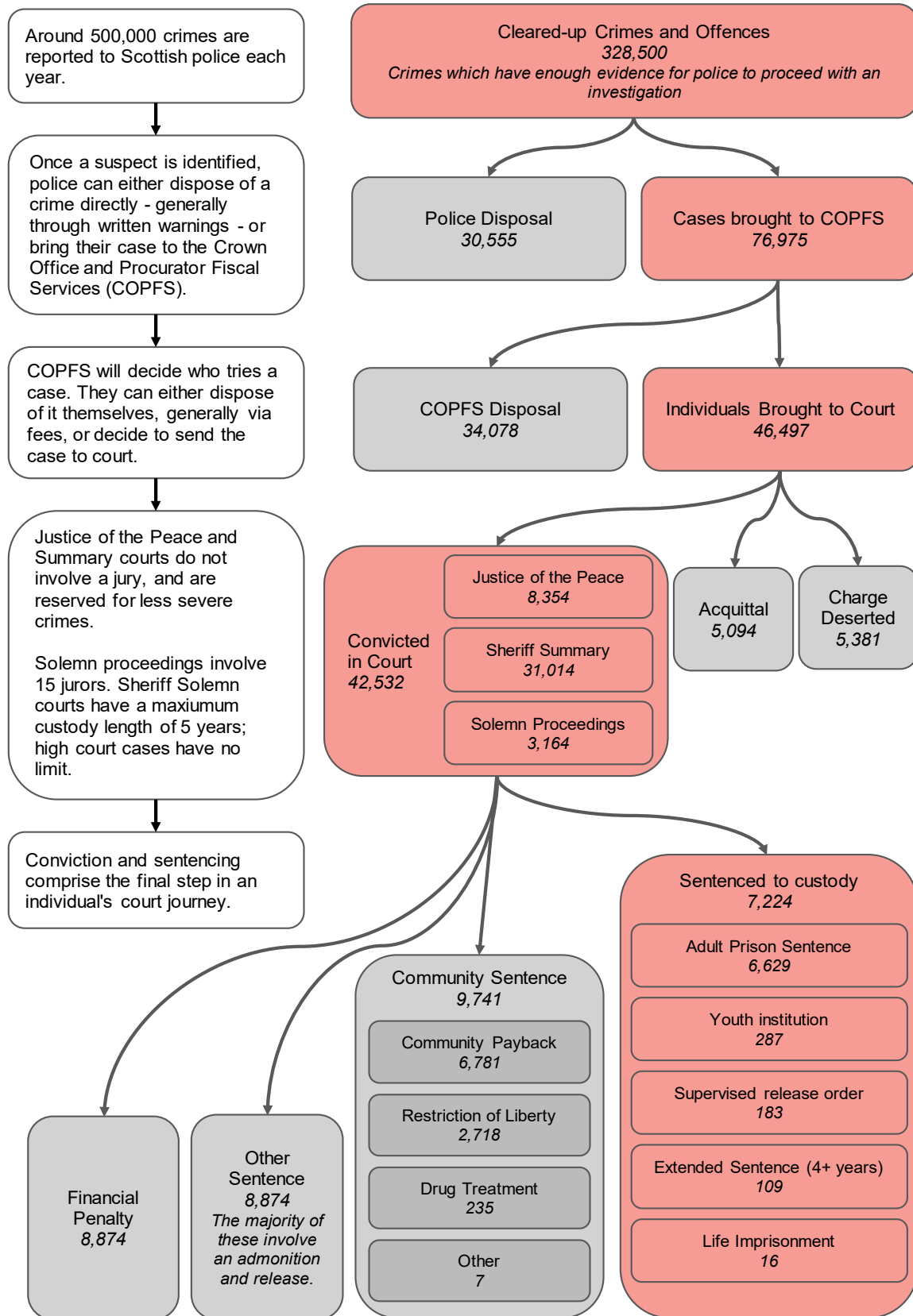
To better understand the degree of this strain, an overview of the criminal justice system is provided in *Diagram 1*.

On average, Police Scotland receive around half a million criminal complaints each year, around two thirds of which proceed to an investigation (Scottish Government, 2022a).

The majority of these crimes, by definition, are less serious. Threatening behaviour and common assault – which do not involve bodily harm – were the most common crimes in 2021. Shoplifting and

miscellaneous minor theft were the next most-common crime, accounting for around 12% of cleared-up crimes in 2021-2022 (Scottish Government, 2022b).

Diagram 1: Flow-through of the Scottish justice system, 2020-2021



Source: (Scottish Government, 2022a)

Reasons for the high prison population

In the past decade, whilst the total number of crimes committed each year has decreased, the share of crimes relayed to solemn courts has increased. Crimes referred to solemn courts tend to be of the most serious nature, and more often than not lead to a trial at the high court or sheriff court in front of a judge and jury.

In 2010, around 4% of crimes were tried in solemn courts. This grew to 7.5% by 2021.

With an increase in the proportion of serious crimes being committed and passing through the Scottish court system, the number of trials receiving custodial sentences has also increased, with around 1 in every 6 trials receiving a custodial sentence between 2019 and 2020.

Not only has the number of custodial sentences increased, the length of time offenders spend in prison has also increased.

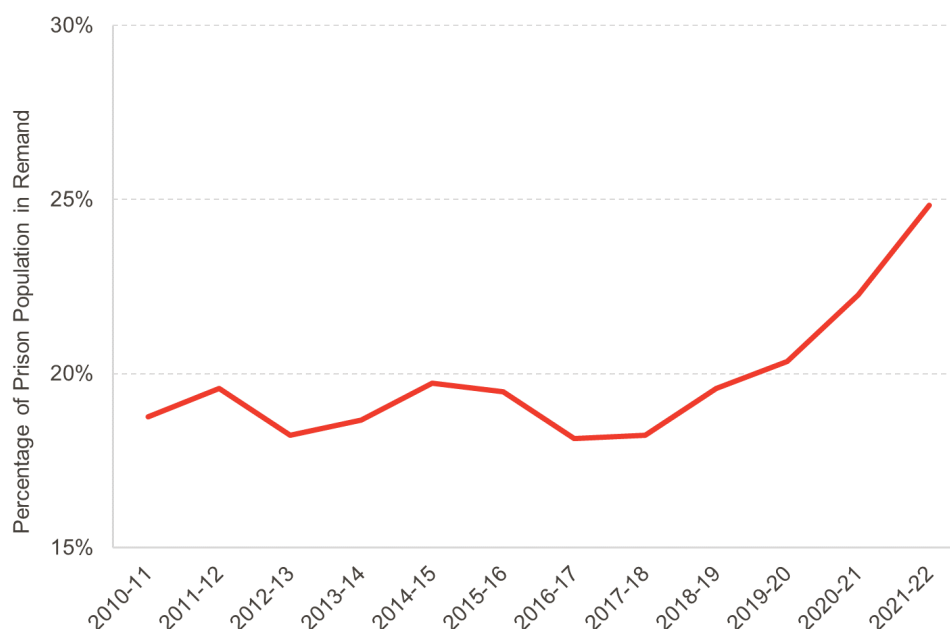
The average length of custodial sentence was over 350 days in 2020, up from 277 in 2010-2011¹.

This decreased slightly from 2020 to 2021 as the number of individuals on remand increased given court closures and subsequent backlogs due to the Covid-19 pandemic, however sentences still remain around 18% longer than ten years earlier (Scottish Government, 2022a).

Chart 1 highlights this increase in the share of the prison population on remand over the past decade.

Remand lengths increased dramatically since 2010. In 2020-2021, around 50% of people waited longer than four weeks for their initial trial, with 13% of individuals in remand for more than 3 months. In fact, on average, a person who entered prison untried and was ultimately convicted waited over 55 days before beginning their sentence in 2021-22 (Scottish Government, 2022d).

Chart 1: Proportion of daily prison population on remand, 2010-2022



Source: (Scottish Government, 2022d)

¹ These figures do not account for lifelong sentences and do not include the length of time that someone spends awaiting trial and awaiting custody.

One of the main factors contributing to Scotland’s high prison populations is the high shares of individuals who reoffend in society.

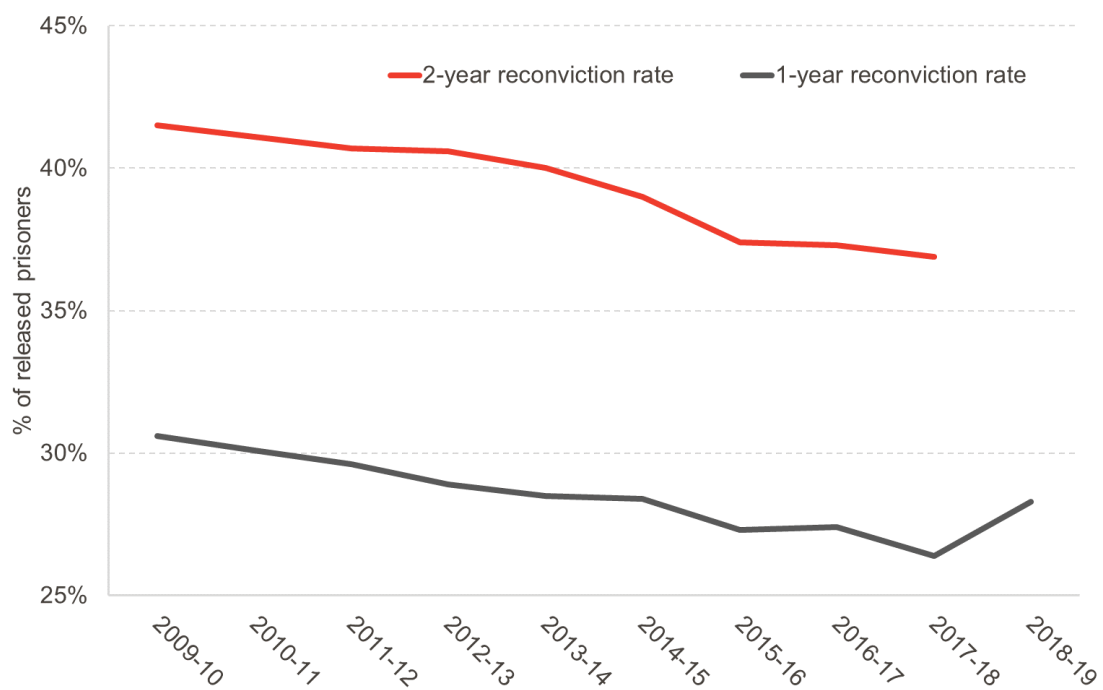
The Scottish Government’s metric for reoffending estimates the share of prisoners who are reconvicted or return to prison within 1 and 2 years of leaving, as shown in Chart 2.

Often recidivism is influenced by an individual’s ability to reintegrate back into society, with throughcare pivotal in giving an individual the best chance of achieving successful outcomes outside of prison.

Reoffending rates have steadily declined between 2009-10 and 2018-19, the latest year of data, however with just under 1 in 3 individuals reoffending within one year of being released, there is still a high number of individuals re-entering the criminal justice system not long after leaving.

Further to this, around 37% of individuals released from prison reoffended within two years, highlighting the long-term struggles for these individuals to reintegrate back into society.

Chart 2: 1 and 2-year reconviction rates for prisoner cohorts released between 2009 and 2019²



Source: (Scottish Government, 2021)

There is also a direct correlation between the number of previous offenses and the likelihood to reoffend. The more previous offenses an individual has, the more likely individuals are to reoffend.

Only 9% of individuals released from their first custody sentence will reoffend within a year. By contrast, 59% released from their tenth or more custody sentence will reoffend during the same period of time (Scottish Government, 2021).

² These statistics ceased publication for the 2019-20 prisoner release cohort.

The most common reoffenders are typically convicted of lower-end crimes. Crimes of dishonesty, which includes things like theft, are most likely to reoffend within a year (*Chart 3*).

Chart 3: Likelihood to recommit by type of crime

| Main type of crime | Percent reconvicted of any crime within a year |
|---------------------------|--|
| Crimes of dishonesty | 45.6% |
| Other crimes and offences | 31.4% |
| Criminal damage | 30.0% |
| All offenders | 28.3% |
| Breach of the peace | 26.5% |
| Drug offences | 25.2% |
| Violent crime | 21.8% |
| Sexual crime | 10.4% |

Source: (Scottish Government, 2021)

Age is also strong indicator of likelihood to be reconvicted within a year of release. Around 35% of men under 21 are reconvicted within a year, compared to just over 20% of men over 40.

For women, the story is a slightly different – reconviction rates peak between 26 and 30, with women over 40 less likely to be reconvicted within a year (Scottish Government, 2021).

One possible explanation for this is that committing crime is physically taxing and becomes more difficult to do as individuals age (Cornelius, Lynch and Gore, 2017).

Furthermore, older individuals spending long periods of their early life in and out of the prison system are far more likely to engage with support systems to integrate back into society, as highlighted in [Rehabilitating Scotland: Exploring the impact of mentoring-based throughcare](#).

Individuals with shorter sentences are also more likely to reoffend. This does not mean that longer or more severe sentences are more effective, however. People that commit low-end crimes are more likely to continue to do so.

The Ministry of Justice in England postulates that this is because prisoners with shorter sentences have access to fewer resources upon release (Bell, 2011).

Serious violent and sexual crimes, which are tried in solemn courts, typically come with longer sentences. The reoffending rates for these crimes rates have been fairly consistent over time.

Costing Crime

Given the volume of individuals entering the criminal justice system each year, it is unsurprising that this system is key area of public spending for the Scottish Government.

The costing of crime has two elements: economic costs of crime such as damage to properties, the cost of running and maintaining prisons but also the foregone earnings from individuals not economically active in the labour market.

However, there is also the social costs of crime. As well as perpetrators, often there are victims of crime, who may suffer from longer term emotional or physical trauma as a result of crime. Furthermore, high levels of crime in communities can have long term implications for these areas.

An individual in prison also likely leave behind families, children and friends, with significant ramifications for these individuals in their attempts to support loved ones.

For the 2022-23 budget, Scotland allocated around £3 billion for criminal justice. This is about 5.5% of the overall budget and includes £476 million in prison services, which increased 8% since 2020 (Scottish Government, 2022c).

For individual offenders, the costs of offending include lost wages while in prison, legal expenses, bail, and decreased job opportunities upon release. Families are also affected – costs include travel costs for visitation and losses of an income source.

Ongoing unemployment on release is a long-term loss to former inmates, and an indicator for higher reoffending rates. A study in England found that individuals who are unable to find employment are twice as likely to reoffend compared to former prisoners who were able to find a job (Ministry of Justice, 2013).

This number is backed up in Scotland, where the Scottish government found that individuals who leave prison without a job are twice as likely to reoffend as those who leave with some form of employment (Scottish Government, 2018).

Victimhood costs include damage and lost property, but victims costs can also include long-term costs of trauma. This can lead to long-term economic losses and damages for the individual. Victimhood adds costs associated with victim support services, and health costs, with around £20 million earmarked in Scotland for victim support in 2022.

Measuring these costs is exceptionally difficult, but necessary to fully understand how crime and imprisonment affects a society. For instance, evaluating these costs is necessary to assess the benefits of social programs that reduce prison populations, or to provide policymakers with the information they need to make decisions.

How is the cost of crime assessed?

Researchers generally place crime costs into three categories: anticipation costs, consequential costs, and response costs.

Costs related to the anticipation of crime generally refer to security and insurance costs. The costs as a consequence of crime refer to the costs to society when a crime happens. Costs in response to crime include police response, investigation costs, and the costs of the justice system.

The most recent evaluation of the economic and social costs of crime in the UK was published in 2018 by the home office based on information from England & Wales in 2015/16. The study found that the cost of crime in England and Wales was £50 billion for crimes against individuals and £9 billion for crimes against businesses. There are no studies on these costs specific to Scotland (Heeks *et al.*, 2018).

Beyond the UK, many studies also fall short in examining costs from less serious offences, as they are likely to have fewer repercussions. Given the high rate of reoffending from less serious crimes, however, it is clear that they also have high costs to individuals and society.

Anticipation costs

Costs related to security are generally straightforward and transparent. These include the money people and businesses spend on building and private security, vehicle security, and cyber security.

Building and private security refer to general building security, including security systems and access control, as well as security guards and valuable item storage.

Vehicle theft is the third most common crime in the UK based on Crime Investigation data. Apart from car insurance, individuals and businesses spend on additional car security measures like car

alarms, car immobilisers, steering wheel locks and more. Costing this is difficult, however, as there is no clear data on the UK's total expenditure on vehicle security.

Finally, businesses are spending more to improve their cybersecurity. This includes taking actions like training employees and analysing their cybersecurity vulnerabilities. Data on the volume of spending by large, medium, and small businesses on cybersecurity is available in the UK Cyber Security and Sectoral Analysis 2022 (Donaldson *et al.*, 2022).

Insurance premium costs are slightly more difficult to parse out. In general, however, insurance payers in areas with higher crime rates typically have higher insurance premiums. However, customers who can improve their security (for example, by living in a secure location) tend to reduce their insurance premiums (Social Market Foundation, 2019).

Unfortunately, insurance payers who cannot afford to minimise their risks, and so low-income earners, indirectly bear additional costs of crime. The Social Market Foundation (2019) shows evidence that low-income earners pay increased insurance premiums because of high crime costs.

Although evidence suggests that areas with high crime rates have higher insurance costs, other factors, like the cost of living in a region, can influence the insurance premiums between areas. Other factors, like age and gender, also go into risk pricing for insurance. Ultimately, there is no way to separate insurance premiums by crime and non-crime factors, as the total value of insurance premiums is not transparently associated with crime rates.

Consequential costs

The costs as a consequence of crime include tangible monetised costs, like the costs of stolen or damaged property and health services, along with intangibles, such as emotional damage and lost output.

England and Wales monitor the costs of stolen and damaged property via the Criminal Survey for England and Wales (CSEW), and for businesses via the Commercialisation Victimization Survey (CVS). This data is not available for Scotland, however.

Crime victims can also deal with physical and psychological injuries as a result of the crime. It is difficult, however, to ascertain exactly how much healthcare spending is associated with crime. The CSEW database provides data on the number of crimes that need medical attention, but again, does not cover Scottish crime (ONS, 2022).

Beyond cost to the individual, these injuries can result in lost productivity and lost wages. For instance, a Trade Union Congress survey in 2013 estimated that one in five victims of domestic abuse takes up to a month off work due to domestic violence. 2% of victims lost their jobs as a result (TUC, 2014).

The costs of the time taken off work can be estimated using average wages, while reduced productivity at work because of crime can be estimated by comparing the lost wages to quality adjusted life years (QALYs), a common practice in economic appraisal (Heeks *et al.*, 2018).

Furthermore, victims may work with victim services, which have costs associated with the opportunity costs of volunteer time and the total amount spent on victim support services.

The market price of time spent not working (i.e., the prevailing minimum wage) provides the opportunity costs of volunteer time, and the Victim Support services in the UK provide information on how much they spend on victim support services. The Criminal Injuries Compensation Authority provides data on the compensation awarded to crime victims (Criminal Injuries Compensation Authority, 2023).

Finally, insurance administration costs can also be considered a cost as a consequence of crime in addition to a cost in anticipation. In particular, any administration costs associated with insurance pay outs because of crime are part of the monetary costs of crime.

Perpetrators and their families also face opportunity costs as a result of crime. On a basic level, the economy forgoes the goods and services that inmates would have made had they not been incarcerated.

Incarceration can also lower future employment opportunities and hence earnings for the individual due to stigma associated with crime.

There are also strong links between the lifetime earnings lost to convicts and increased poverty levels.

Western and Pettit, for instance, found that only 1 in 4 incarcerated men rise out of the bottom quintile of the earnings distribution (2010). Family members of incarcerated individuals also face lowered household income and lower lifetime earnings.

The cost of visiting and supporting family members in prison is rarely accounted for in costing crime, but is another aspect of what is potentially lost to families as a result.

Response costs

A final cost of crime involves the response costs, which are fairly transparent, and involve publicly available data on police response, investigation costs, and the costs of the justice system. Determining the costs of individual crimes may not be possible to disaggregate, however.

Limitations to measuring the costs of crime

Because the costs of crime vary from obvious, tangible expenditures to more theoretical lost earnings and opportunity costs, estimates on the cost of crime may not be accurately measured or estimated. Most literature focuses on the cost of more severe crimes, as well, and therefore underestimates the actual costs.

Data limitations may also contribute to an underestimation of the costs of crime. Because the data used in estimating the number of criminal incidents comes from police records and crime surveys, any crime which is unreported will be uncounted. Victims still bear the same consequences, however.

Most of the costs included in the study by Heeks *et al*, which is the latest study on the economic costs of crime in the UK, mostly estimated the costs of violent crimes (2018).

The costliest area relevant to all types of crime in the study was the costs of physical and emotional harm. A close second was the costs of justice in response to a crime.

However, in a different study on the costs of crime in the United States, the highest were the opportunity costs of crime. Of the opportunity costs, the highest was the \$307.9 billion in the forgone lifetime earnings for criminals and their families due to the stigma of incarceration, weaker social networks, lower levels of marriage and lower human capital development (Anderson, 2021).

Conclusion

Directly or indirectly, crime poses enormous costs to society. Estimating the costs of crime is important because it provides a rationale for social intervention programs to reduce prison populations or mass incarcerations, and the benefits are enormous.

To incarcerated individuals, estimating how much lost income was saved by reduced crime can illustrate the difference between economic stability and abject poverty (Grawert and Craigie, 2023).

To governments seeking to reduce their spending and expand their revenue, the costs of crime estimates provide insights on which areas to target.

The economic cost of crime estimates reveals how much societies lose every time an individual offends or re-offends. Given the scale of this problem in Scotland, future insight into the cost of crime is invaluable in determining how much the country stands to gain by continuing to prioritise reducing crime rates and prison populations.

This briefing note was written by Joy Samuel as part of her MSc Applied Economics work placement at the Fraser of Allander Institute.

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