

Scottish Prison Population Statistics 2019-20

An Official Statistics publication for Scotland

CRIME AND JUSTICE

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Scottish Government
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Key Findings

Following several years of sustained decrease, the prison population has risen sharply since 2017-18 to an annual average of around 8,200 in 2019-20.

This rise has been amongst the population of adult men only. The average number of women in prison has remained stable since 2013-14 and the average number of young offenders (those under 21 years) continues a downward trend. There has been little change in the average number of prisoners who have served in the armed forces (around 3% of the prison population) or in the average number of prisoners from ethnic minority backgrounds (around 4% of the prison population).

While the overall annual average prison population has increased, the number of individuals imprisoned in each year has fallen. In 2019-20, 17,294 individuals experienced imprisonment (for all or part of that year) in Scotland, a fall of around 15% from 2010-11.

Individual level analysis allows deeper exploration of the composition of the prison population. The number of women experiencing imprisonment has fallen, from 1693 individuals in 2010-11 (8.3% of the total) to 1,263 in 2019-20 (7.3%). Self-reported disability has remained consistent, with around 8-10% of prisoners reporting a disability on entry to prison.

Small but potentially important changes have occurred across the minority ethnic groups in prison. The absolute number of prisoners identifying as 'Mixed or Multiple' or 'Other ethnic group' have increased in the last 10 years, and the absolute number identifying as 'Asian, Asian Scottish Or Asian British' or 'African, Caribbean or Black' have decreased.

Using counts of individuals, rates of imprisonment can be observed. The imprisonment rate for White and Asian people fell between 2011-12 and 2019-20. For other groups, taking into account the uncertainty around ethnic group population estimates, there was no discernable change. At both points in time however, the imprisonment rate for people who identify as African, Caribbean or Black, or from Other ethnic groups, is significantly higher than for people who identify as White.

The average age of individuals experiencing imprisonment is increasing. The average age of prisoners has increased from 31.8 years in 2010-11 to 35.9 years in 2019-20, and the proportion of prisoners aged 55 or over has more than doubled in the last decade.

There are clear links between experience of area level deprivation and likelihood of imprisonment in Scotland. Individuals from the 10% most deprived areas are over-represented in prison arrivals by a factor of three, a finding consistent across the last decade. In addition, the proportion of individuals arriving in prison who report having no fixed abode has increased over the past decade, from 4.4% to 7.5%.

The average time served in custody has been rising. Between 2010-11 and 2019-20, the proportion of individuals who depart prison having served up to 3 months fell from 70% to 58%. The proportion who served a year or more went from 7% of departing prisoners in 2010-11 to 10% in 2019-20.

The prison population comprises two groups: those who remain in prison for the duration of the analytical period (the "full-year" population), and those who enter or leave prison one or more times during the analytical period (the "part-year" population). In the absence of sentencing information, the size of the full-year population provides a potentially useful

proxy for those individuals on longer sentences (i.e. longer than 12 months). In 2019-20, the full-year population consisted of 3,417 individuals, while 13,877 made up the part-year population.

Following a period of stability from 2010-11, the full-year population began to increase rapidly in 2018-19 rising from 2,909 in 2017-18 to 3,417 in 2019-20. On the other hand, the part-year population has declined steadily year on year since a high of 17,805 in 2011-12. Thus it appears it is the increase in the full-year group (those serving sentences longer than 12 months) that has driven the recent sharp increase in the prison population overall.

Introduction

An Experimental Statistics Publication
by
Scottish Government Justice Analytical Services
on behalf of the
Scottish Prison Service

This statistical release has been designated as experimental statistics. Experimental statistics are official statistics that are newly developed or innovative, and are undergoing evaluation. Part of the aim of this publication is to engage with users to assess the suitability and value of the statistics released. Scottish Government Justice Analytical Services are therefore seeking your feedback on this publication, to improve the product and better support our user base. If you are a user of these statistics, please click the link below to take part in our user questionnaire.

Leave Feedback
bit.ly/SPPS1920

No information about participants is collected without their explicit consent.

About Scottish Prison Population Statistics

This publication presents new data on the Scottish prison population up to 2019-20. It explores population levels and composition and how these have changed over time, with a particular focus on the last 10 years. This is the first Scottish Government publication on the prison population since December 2015.

This publication was produced by Scottish Government statisticians using administrative data from the Scottish Prison Service (SPS) management information system. These data are collected for by prison officers and staff for operational intelligence and logistical support.

The prison population is not static; individuals move in and out of the population every day. The SPS management information system is live, updating on a daily basis to capture movements (e.g. to/from remand) within the prison population. An extract of data from this system reports on the population at the moment in time the extract is drawn. Like many other operational databases, it was not designed to retain detailed historical data or provide retrospective information to assess how the prison population is changing over time.

The Scottish Government holds detailed historical prison population data up to 2014. This dataset was compiled by combining and linking daily extracts from the live Scottish Prison Service operational database and formed the basis for much of the previous statistical publications on the prison population¹. However, due to technological difficulties arising when the Scottish Government server was upgraded in 2014, it is no longer possible to

¹ A number of tables and figures in the previous reports were also based on 'snapshots': single-day extracts.

support what was a complex and resource intensive data cleaning and compilation process.

In the absence of this historical dataset, collating information on the prison population and how it is changing over time now relies on the data that do persist over time in the SPS management information system memory. Information about the times when prisoners occupied specific cells is retained, and forms the basis for these statistics. Matched to that is information provided by prisoners on arrival about their personal characteristics.

Using this new dataset, this publication seeks to replicate the content of the previous statistical publications as far as possible, so that meaningful comparisons may be made. Data are provided on annual average population levels, the changing nature of the movements of the prison population and the changing characteristics of that population. Additional analyses of where the prison population are drawn from are also included.

Unfortunately the Scottish Government cannot currently provide data relating to contemporaneous legal information, i.e. tracing legal statuses, offences and sentences back through the historical records in PR2. To date it has not been possible to collate this information in a reliable way and align it with the occupancy data on which this publication is based. This means this publication does not yet include information on legal status: we cannot separate sentenced prisoners from those held on remand in our analyses. We also cannot provide information on the offences for which prisoners have been convicted or the length of sentence they are serving.

Publishing information on the above is an ongoing development project currently being pursued by Scottish Government Justice Analytical Services, on which we will provide an update in winter 2020.

Associated data tables

The associated data tables with this publication include measurements in addition to those discussed in this publication. They are also available interactively at <https://scotland.shinyapps.io/sg-prison-population-statistics/>

These tables include prevalence by a number of additional groups, including marital status, sexual orientation, and demographics by prison establishment.

Other sources of information on the Scottish prison population

The Scottish Prison Service (SPS) publish a range of statistical information and research reports about the prison population on their website:

For weekly population snapshots and annual averages of the prison population broken down by custody type, gender and age, as well as the population on home detention curfew by gender: <https://www.sps.gov.uk/Corporate/Information/SPSPopulation.aspx>.

For the SPS Prisoner Survey and other research reports: <https://www.sps.gov.uk/Corporate/Publications/Publications.aspx>

The Scottish Government produces a range of statistics on the criminal justice system. Those referenced in this publication include information about recorded crime rates (<https://www.gov.scot/publications/recorded-crime-scotland-2018-19/>) and criminal proceedings statistics (<https://www.gov.scot/publications/criminal-proceedings-scotland-2018-19/>)

1 Daily Average Populations

(Data tables A1 and A2)

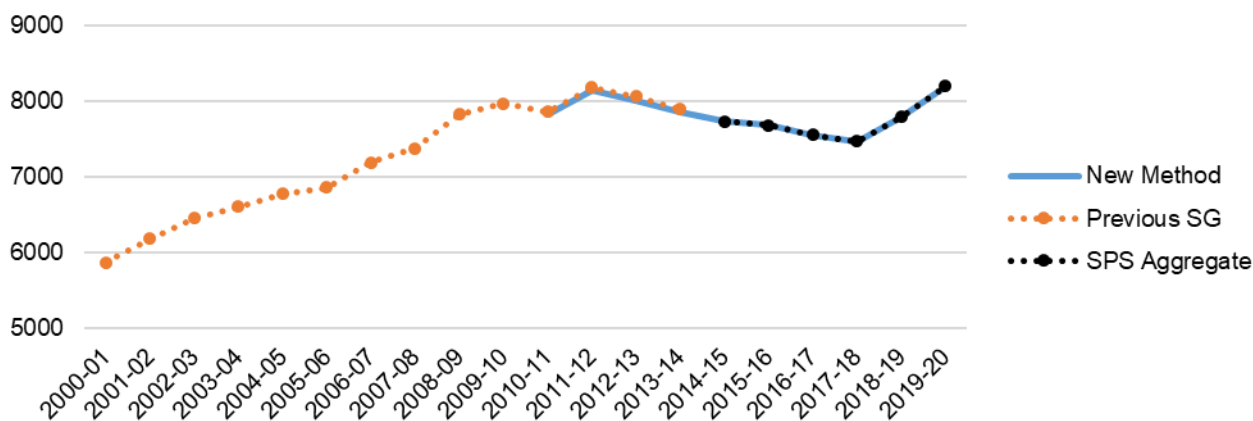
Average prison population totals have been used to explore trends and patterns in the prison population. In a departure from this model, most of this publication focuses on the attributes of individuals who experience imprisonment in each year (see section 2). Statistics in this section provide comparisons to, and validation against, previously published estimates, and extends them to the latest available data.

Daily population averages are derived by averaging population figures gathered over the course of a given year. Figures for calculating population averages were historically extracted on a daily basis. The average calculation in this publication is based on a “cell-wise” method² – a different methodology from both the SPS published values³ and those from the previous Scottish Government publication⁴.

In spite of their methodological differences, the results from the three methods are broadly in line. The cellwise calculation differs from the SPS figures by less than 0.01% in each year, and by around 0.5% from the legacy Scottish Government publication.

The annual average population has fluctuated over the course of the ten years covered by these data (Figure 1). In 2011-12, there was a continuation of a general rising trend in the population. This was then followed by several years of steady reduction. However, between 2017-18 and 2019-20, the average daily prison population rose steeply from around 7,500 in 2017-18 to nearly 8,200 in 2019-20. Some of the reasons for this increase are unpicked in section 5.

Figure 1: Daily average population estimates are nearly identical across sources



² See section 6.1 for more information

³ Scottish Prison Service, Annual Population:
<https://www.sps.gov.uk/Corporate/Information/SPSPopulation.aspx>

⁴ Scottish Government, Prison statistics and population projections Scotland: 2013-14:
<https://www2.gov.scot/Publications/2015/12/5123/0>

1.1 Women and Young Offenders

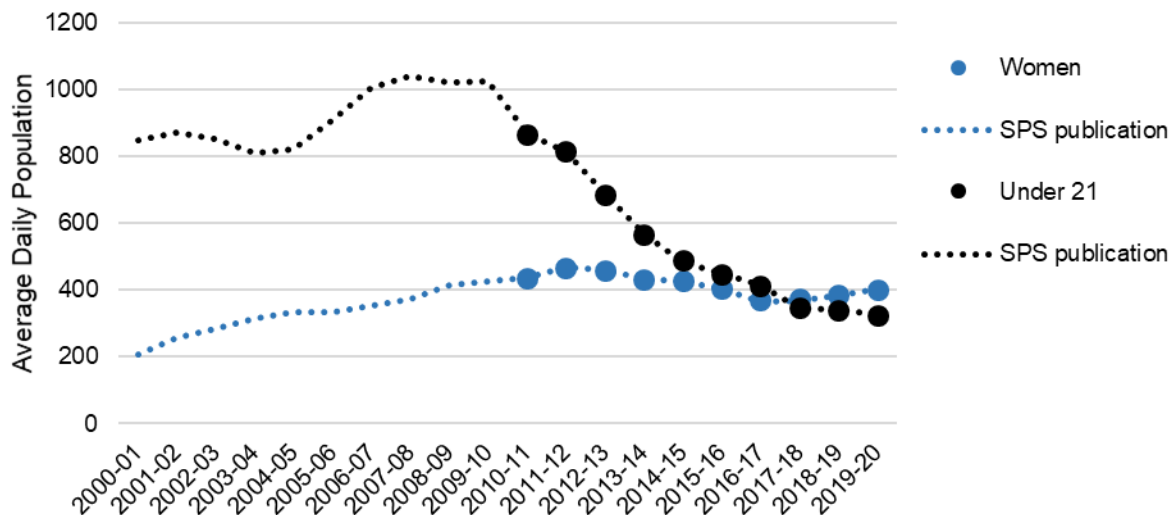
(Data table A2)

The prison population is largely comprised of men aged 21 and over. Women and young offenders are held separately in custodial establishments and distinct approaches have been developed to manage these particular groups within the prison system. The size of these groups has followed diverging trends from the overall population.

Following a period of rapid rise, the average number of women in custody fell between 2011-12 and 2016-17. Since 2016-17, the average population has been slightly under 400 people (Figure 2).

By contrast, the average number of young offenders in custody (people aged 20 or younger) has dropped considerably over the same period, from around 864 in 2010-11 to around 325 in 2019-20 (Figure 2).

Figure 2: The trend in the daily average populations of women in prison is in line with the population overall, while Young Offenders have fallen each year since 2009-10



1.2 Establishment Populations

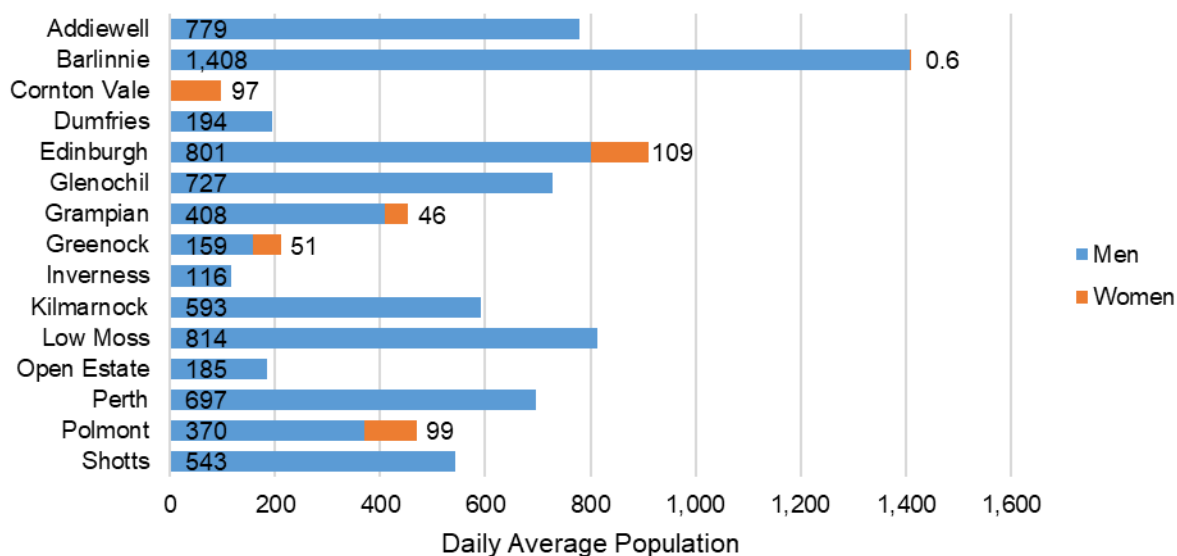
(Data table B1)

The management of prison populations is complex, and cannot be fully captured over the long term with the currently available data. As well as segregation by gender and age (for young offenders), subgroups within the population are required to be separated that we cannot currently identify, including: unsentenced individuals (the “remand” population), sexual offenders, those with links to serious and organised crime and those with characteristics requiring additional protections.

As a result, our analysis of the distribution of the prison population is a limited one until these additional factors can be fully isolated in our data. However we can see that women are not spread evenly across the estate but concentrated in specialist establishments like Cornton Vale (a dedicated women’s prison) and Polmont (which also caters specifically to young offenders), or as separated populations in HMPs Edinburgh, Polmont, Greenock and Grampian.

Around 97% of prisoners under 21 are resident in HMPYOI Polmont.

Figure 3: Average daily population of men and women in prisons, 2019-20



1.3 Ethnicity

(Data table B3)

Previously published statistics on ethnicity were based on an extract from a single day. The new data allow us to survey the entire year and derive averages and total counts of individuals in a period. However, the prevalence of different ethnic groups in prison comparing the old method for a single day and the new methodology of an average day provide very similar estimates for 2013-14.

The proportion of prisoners who identify as “White” has remained more or less constant since 2013-14 at 96%. More detailed discussion of per capita imprisonment is provided in section 2.4 in terms of the absolute number of individuals who spend any time in prison in the course of a year.

Table 1: People in custody on an average day by ethnicity,

	Previous publication ⁵		2013-14		2019-201	
	30/06/2013	%	average day	%	average day	%
White	7,603	96%	7,563	96%	7,859	96%
Asian, Asian Scottish or Asian British	132	2%	142	2%	144	2%
African, Caribbean or Black	107	1%	104	1%	97	1%
Mixed or multiple ethnic groups	23	0%	19	0%	33	0%
Other ethnic groups	18	0%	22	0%	62	1%
Total	7,883		7,851		8,195	

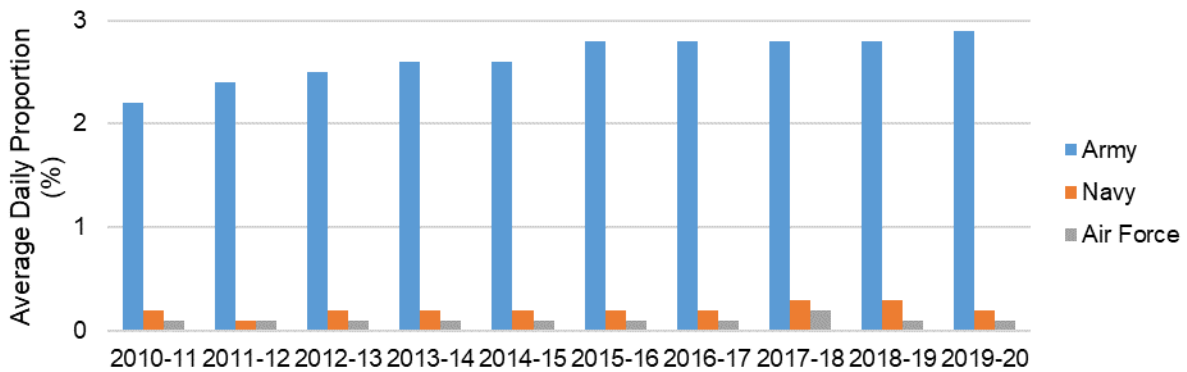
⁵ Prison statistics and population projections Scotland: 2013-14
<https://www2.gov.scot/Publications/2015/12/5123/downloads#res491417>

1.4 Armed Forces Service History

(Data table B4)

People arriving to prison are asked about current or past service in the armed forces to facilitate veterans organisations' interventions. The proportion of prisoners with some service history increased to above 3% in 2015-16, and was 3.2% in 2019-20.

Figure 4: The proportion of prisoners with some history in the armed services increased up to 2015-16



2 Imprisoned People: Individual level analysis

In terms of the total number of individuals experiencing imprisonment each year

- In 2019-20, 17,294 individuals spent some time resident in Scottish prisons
- This has fallen by around 15% since 2010-11, when 20,407 people were identified

The current dataset allows examination of the attributes of individuals who are imprisoned for any length of time in each year. It therefore more fully captures the impact on individuals, their families and communities than a measure of average populations.

In this section, we highlight cases where the representation in the prison population differs from the population of Scotland as a whole. Where changes to subgroup representation have clearly occurred over the past ten years, we present these changes in terms of the proportion of individuals in each subgroup.

Daily average populations are provided in the associated tables accompanying this publication. In general the relationships and changes identified below are broadly similar. Where this is not the case, we highlight it in the commentary.

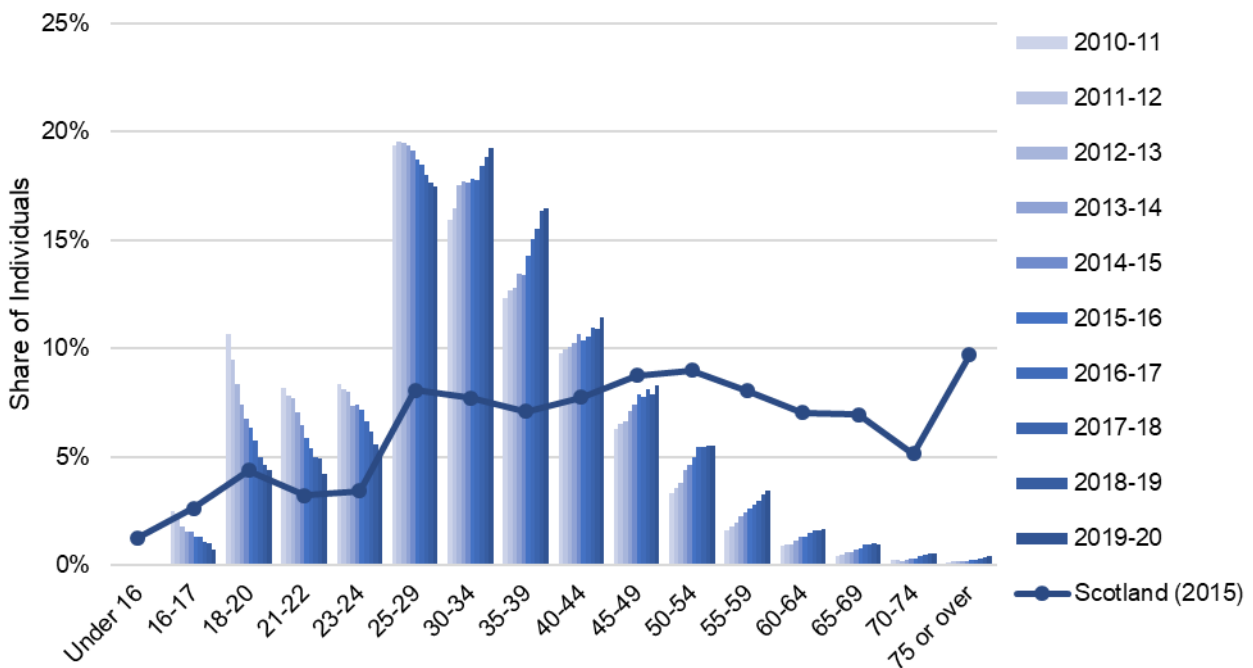
2.1 Age

(Data table B2)

People who spend time in prison are younger on average than the population of Scotland as a whole – younger people are far more likely to be imprisoned than older people. However, in the past ten years, this difference has narrowed.

- The imprisoned population overall was older in 2019-20 than in 2010-11 (Figure 5)
- The average age of individuals spending any time in prison in 2010-11 was 31.8; by 2019-20 this had risen 35.9
- The proportion aged 55 or older has more than doubled in ten years, from 3.3% to 7%.

Figure 5: The age profile of prisoners is younger than Scotland overall⁶, but ageing in the past ten years



2.2 Gender

(Data table B2)

Throughout this time series, men consistently make up the majority of people in prison. The proportion of prisoners who are women fell over the past ten years, from 1,693 individuals in 2010-11 (8.3% of the total) to 1,263 in 2019-20 (7.3%).

The average age of women in prisons is approximately the same as that of men, and has increased in step from 31.6 in 2010-11 to 35.4 in 2019-20.

2.3 Disability

(Data table B5)

On entry to prison, people are asked 'Do you consider yourself to have a disability?'. This self-reported status does not necessarily capture all the physical or mental needs of a person entering custody and should be viewed as a proxy measure only.

Between 8% and 10% of people who spent any time in prison over the past 10 years self-identified as being disabled.

⁶ National Records of Scotland, Mid-year Population Estimates: <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/population-estimates-time-series-data>

The prevalence of people reporting a disability on entry to prison is broadly as expected for a relatively young population compared with population surveys of the Scottish population as a whole⁷.

2.4 Ethnicity

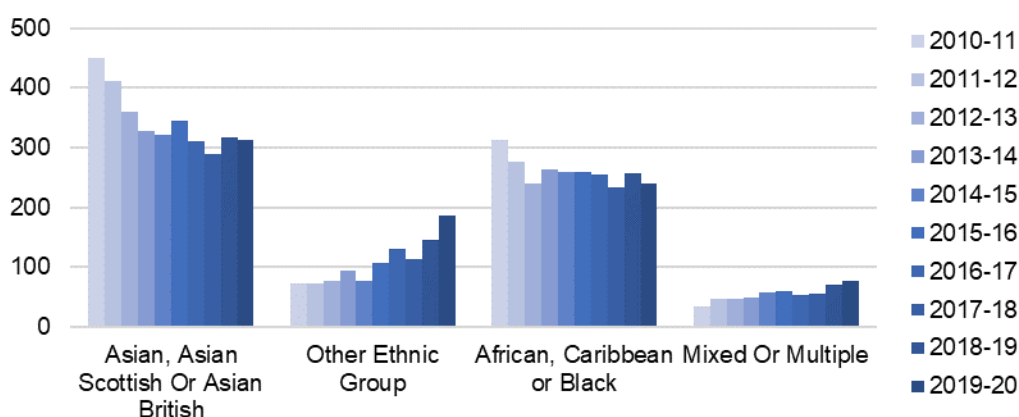
(Data table B3)

Reflecting the characteristics of Scotland as a whole, the majority of people who spend time in prison identify as White.

The proportion of individuals who spent time in prison over the last ten years and were in an ethnic group other than 'White' was between 3.7% and 4.3%; broadly in line with the profile of the Scottish population as a whole (4% on census day 2011).

Looking at the breakdown of minority ethnic categories in Figure 6, the prison data does show an increase in the numbers of individuals in the 'Mixed or Multiple' or 'Other Ethnic Group' categories over the last 10 years. The absolute numbers are small, but the size of these groups has almost doubled in the 10 year period examined. This is in the context of the number of individuals spending time in prison falling overall.

Figure 6: Changes in the number of individuals from minority ethnic groups spending any time in prison



The 2011 census found a large proportion of minority ethnic groups in Scotland had much younger profiles than the white majority.⁸ This was particularly evident among people identifying in the "Mixed or Multiple Ethnic groups category", of whom nearly half (9,762 people) were under 18 and 34% under 10 years old. The "African, Caribbean or Black" and "Other Ethnic Group" groups had similarly young demographics. The move to adulthood does seem to correlate with the rising numbers of prisoners in these demographic groups albeit further analysis combining different data sources would be needed to explore this pattern further.

⁷ Scottish Surveys Core Questions (SSCQ) 2018, Supplementary Tables, Table 4.5: "Limiting Long-term Physical or Mental Health Condition" provides an age distribution of self-reported disability <https://www.gov.scot/publications/scottish-surveys-core-questions-2018-analytical-tables/>

⁸ National Records of Scotland, Scotland's Census 2011 - Table DC2101SC - Ethnic group by sex by age: <https://www.scotlandscensus.gov.uk/ods-web/standard-outputs.html>

Data from the 2011 census and the Scottish Surveys Core Questions⁹ allow us to consider rates of imprisonment for different ethnic groups.

Table 2: Individuals spending any time in prison and incarceration rates⁹ by ethnicity: 2011-12 & 2019-20

	2011-12		2019-20		
	individuals	per 1000	individuals	per 1000	range
White	19,705	4.7	16,474	3.8	(3.7 — 3.9)
Asian, Asian Scottish or Asian British	412	3.8	312	2.5	(2.2 — 2.8)
African, Caribbean or Black	276	10.3	240	7.6	(6.1 — 10.2)
Mixed or multiple ethnic groups	48	5.7	78	4.5	(3.4 — 6.4)
Other ethnic groups	73	6.8	187	6.9	(5.6 — 9.0)

The incarceration rate for White and Asian people fell between 2011-12 and 2019-20. For other groups, taking into account the uncertainty around ethnic group population estimates, there was no discernable change.

In 2019-20, the incarceration rate for people who identify as African, Caribbean or Black, or from Other ethnic groups, remains significantly higher than for people who identify as White (see Table 2).

People identifying as Asian, Asian Scottish or Asian British have the lowest incarceration rates, and this rate has fallen from 3.8 per 1000 population in 2011-12 to between 2.2 and 2.8 in 2019-20.

Ethnic groupings have been aggregated in this report, which is likely to mask variations within each group. Disaggregation of prisoner ethnicity data is currently being pursued for future analyses.

⁹ The base population by ethnicity for 2011-12 is drawn from the 2011 Census (see footnote 8). For subsequent years, ethnic group sizes are drawn from the pooled sample of Scottish Surveys Core Questions (SSCQ) and therefore have an associated margin of error provided in the “range” column of Table 2.

Using SSCQ data makes it possible to control for the increasing age (into adulthood) of those youngest minority ethnic populations when the census was taken in 2011.

In both cases, population rates are based only on populations aged 16 or over, due to the SSCQ's methodology: <https://www2.gov.scot/Topics/Statistics/About/Surveys/SSCQ/>

3 Arrivals

The current dataset allows identification of arrivals and departures (i.e. prisoners who enter or leave the care of the Scottish Prison Service) during an analytical period. An **arrival** is where a period of imprisonment begins for an individual, and is only counted as such if the arrival occurred on a separate day from any previous **departure** for that individual¹⁰.

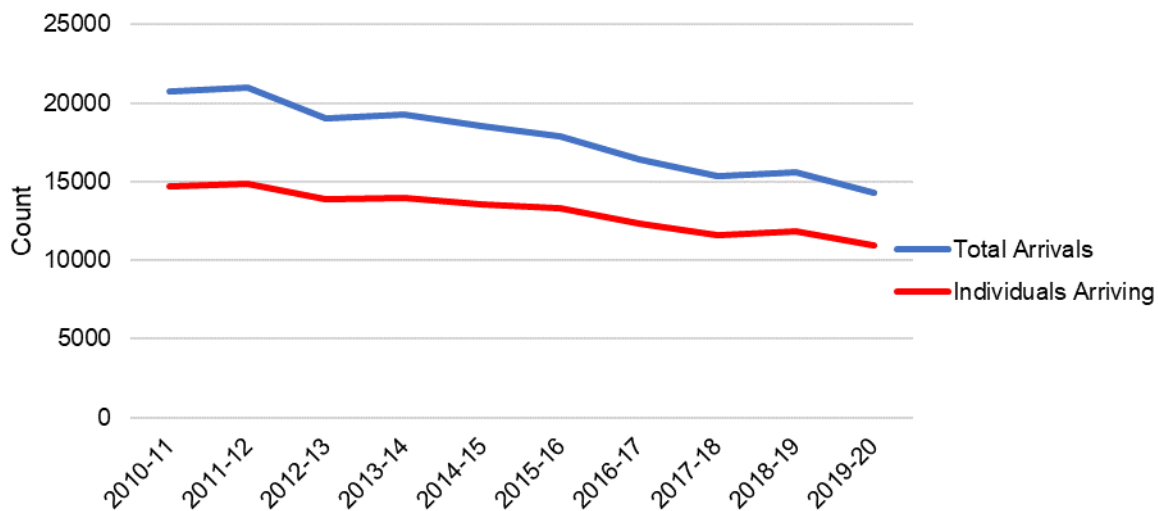
The information collected when an individual arrives into prison allows exploration of where individuals are drawn from. Addresses are collected on entry, allowing insight to geographical spread and extent of area deprivation, as well as living conditions (in terms of having fixed accommodation or no fixed abode). It is important to note that the status and location of a prisoner's address may change during the time served in custody.

3.1 Total Arrivals & Individuals Arriving

(Data tables C1, E1)

The number of individuals who arrive in prison one or more times in a year fell 26% over the past decade, from 14,709 in 2010-11 to 10,937 in 2019-20 (Figure 7).

Figure 7: The count of people arriving has fallen, with the count of total arrivals falling at a somewhat faster rate



A single individual can arrive at prison multiple times within a year. However the proportion of individuals doing so has fallen over the past decade. In 2010-11, 28% had two or more arrivals, while by 2019-20 this had fallen to 23%. This is likely due to a reduction in short custodial sentences¹¹.

As a result, the total number of arrivals has fallen faster than the number of individuals arriving. Arrivals fell by 31% over the past decade, from 20,721 in 2010-11 to 14,324 in 2019-20.

¹⁰ See section 6.2: Arrivals and Departures for more information

¹¹ Scottish Criminal Proceedings Statistics, 2018-19, Table 10(d): <https://www.gov.scot/publications/criminal-proceedings-scotland-2018-19/pages/29/>

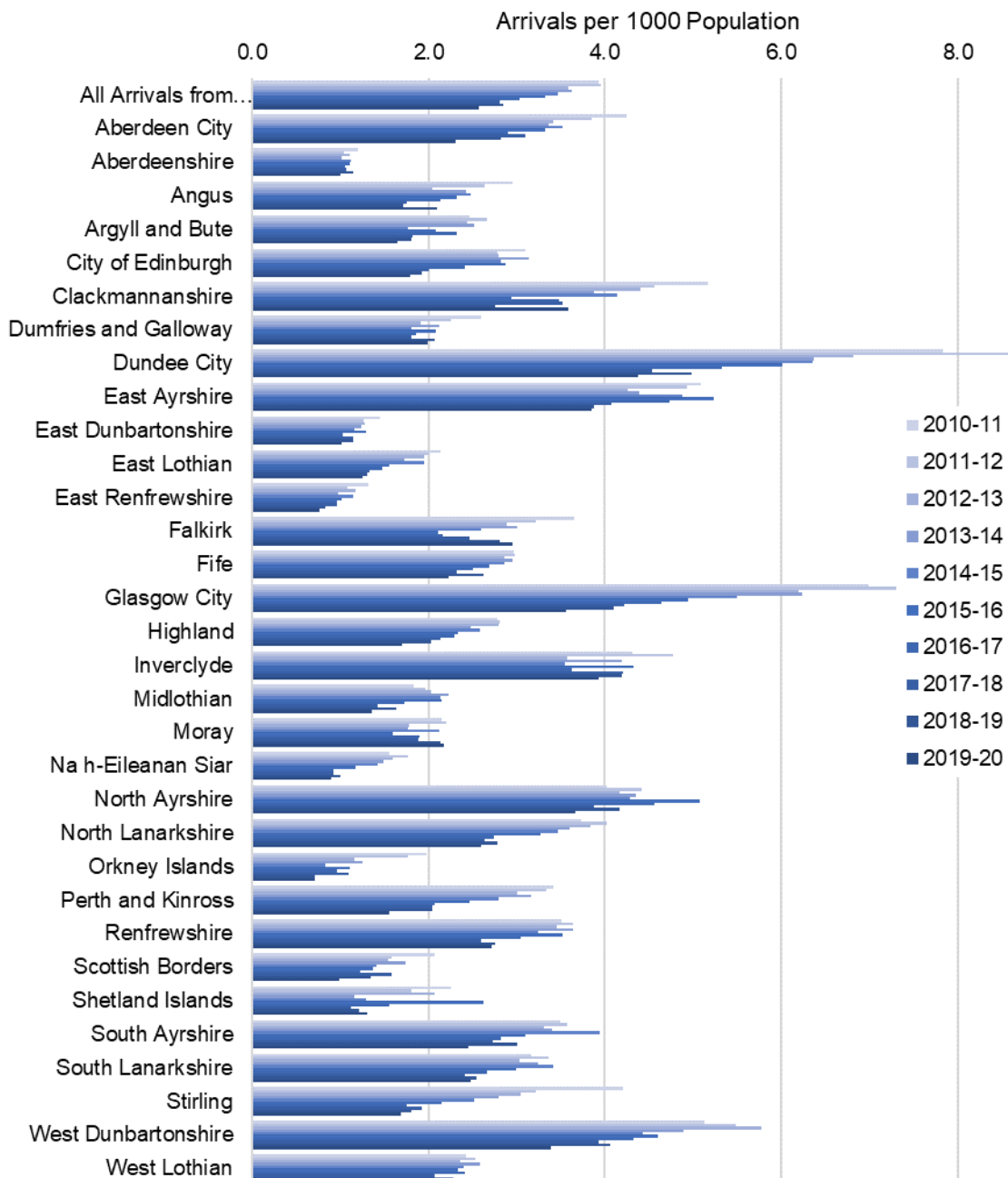
Because a prisoner's address – and therefore local authority and deprivation status – may change between stints in prison, in this section we count all arrivals permitting the double-counting were people arrive more than once in a year.

3.2 Local Authority

(Data table C2)

Looking at geographical spread of arrivals in terms of local authority, the proportion of arrivals per local authority is broadly in line with the overall population level of each. Looking at rate of imprisonment per head of population though, Dundee City consistently provides the highest number of people arriving in prison per head over the past ten years (Figure 8).

Figure 8: People arriving one or more times per head of population from each Local Authority



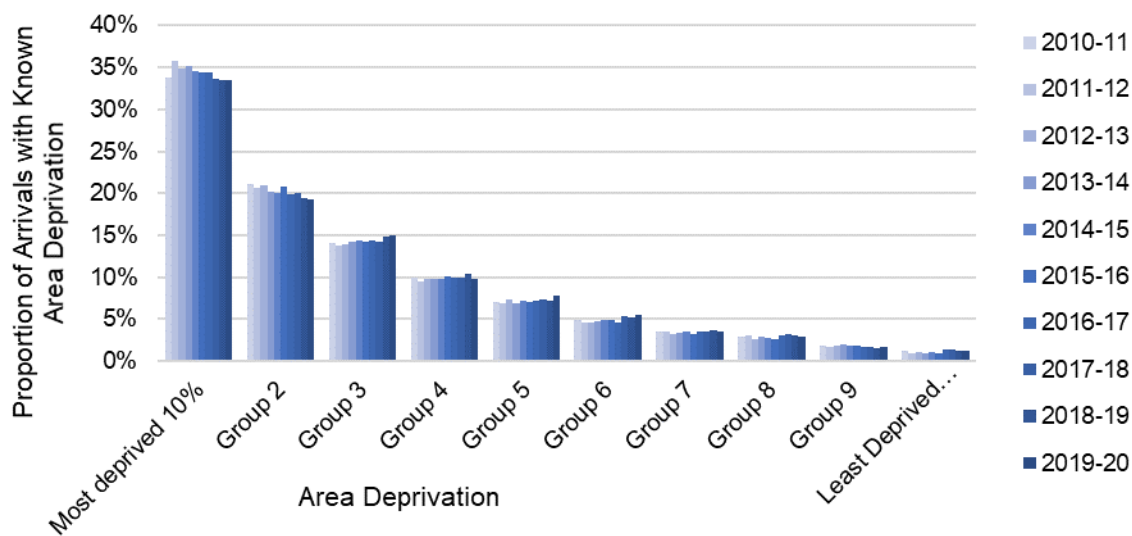
3.3 Deprivation

(Data table C3)

Identifying the Scottish Index of Multiple Deprivation (SIMD)¹² rank of available prisoner addresses highlights the clear links between experience of area level deprivation and likelihood of arriving in prison.

The 10% most deprived areas are over-represented in prison arrivals by a factor of three (Figure 9). The top 60% of areas (group 5 and above) are under represented by increasing degrees as their area deprivation decreases. This relationship has been more or less static over the past decade.

Figure 9: An arrival in prison is three times more likely to come from the most deprived 10% of areas



Looking at Figure 9 above, there are some indications that the over-representation from the most deprived areas has reduced by a small degree in the past ten years, and that representation in groups 3 through to 6 has increased marginally.

Prisoners with no fixed abode, addresses outwith Scotland, or those where address information is missing altogether, are omitted from this analysis. This removes around 10% of arrivals in each year of analysis.

3.4 No Fixed Abode

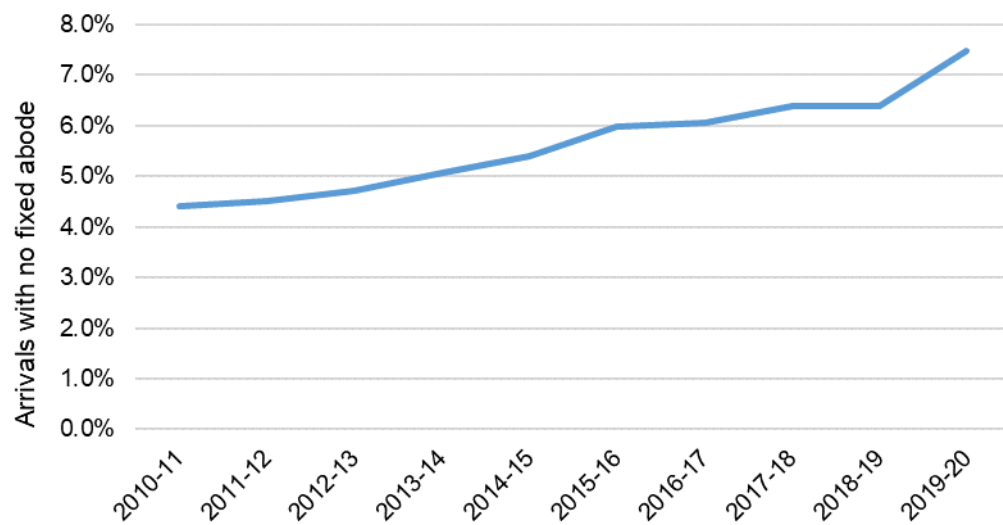
(Data table C4)

Individuals arriving in prison are asked to provide an address; where they do not, they are registered as no fixed abode. People may respond in this way because they do not wish to give their home address, e.g. if they do not wish to associate their stay in prison with a family home.

¹² See <https://www2.gov.scot/Topics/Statistics/SIMD/> for more information on the SIMD

Nevertheless, keeping these caveats in mind, the proportion of individuals arriving in prison who report having no fixed abode has increased over the past decade, from 4.4% to 7.5% (Figure 10).

Figure 10: Decade-long increase in people reporting having no fixed abode



4 Departures

In this section we look at the individuals who leave prison for one night or more: on what basis they have been released, and for how long they had been incarcerated up to that point.

4.1 Total Departures & Individuals Departing

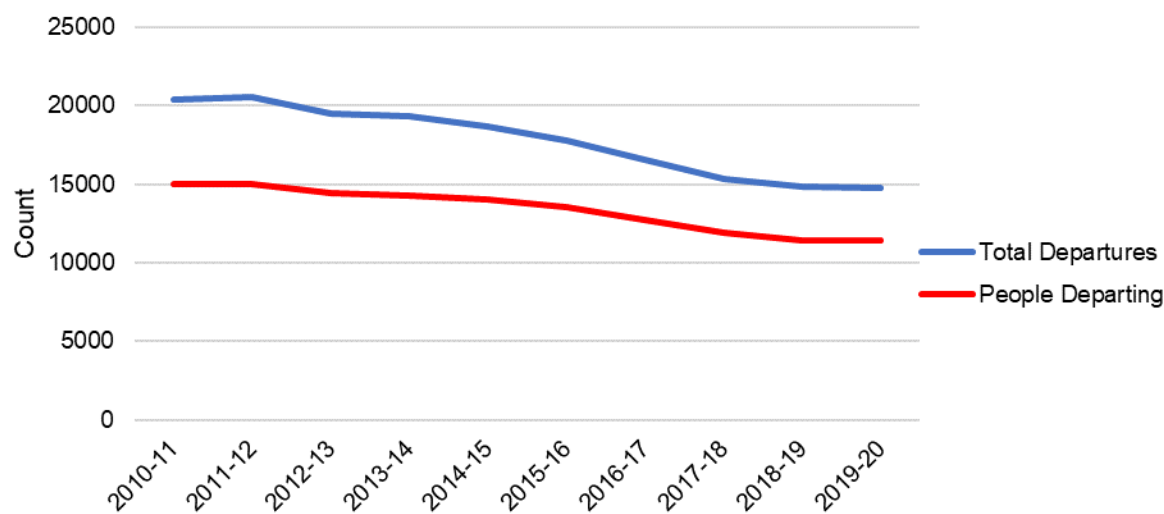
(Data table B2)

The number of individuals departing prison one or more times in a year fell 24% over the past decade, from 15,038 in 2010-11 to 11,457 in 2019-20 (Figure 11).

A single individual can depart prison multiple times within a year. However the proportion of individuals doing so has fallen over the past decade. In 2010-11, 25% had two or more departures, while by 2019-20 this had fallen to 21%. This is likely due to the observed reduction in short custodial sentences¹³.

As a result, the total number of departures has fallen faster than the number of individuals departing: 28% over the past decade, from 20,364 in 2010-11 to 14,741 in 2019-20.

Figure 11: The count of people departing prison has fallen, with the count of total departures falling at a somewhat faster rate



Because a prisoner may depart prison multiple times in a year, for different reasons and having served different time periods, in the remainder of this section we count departures permitting the double-counting were people depart more than once in a year.

4.2 Liberations

(Data table C1)

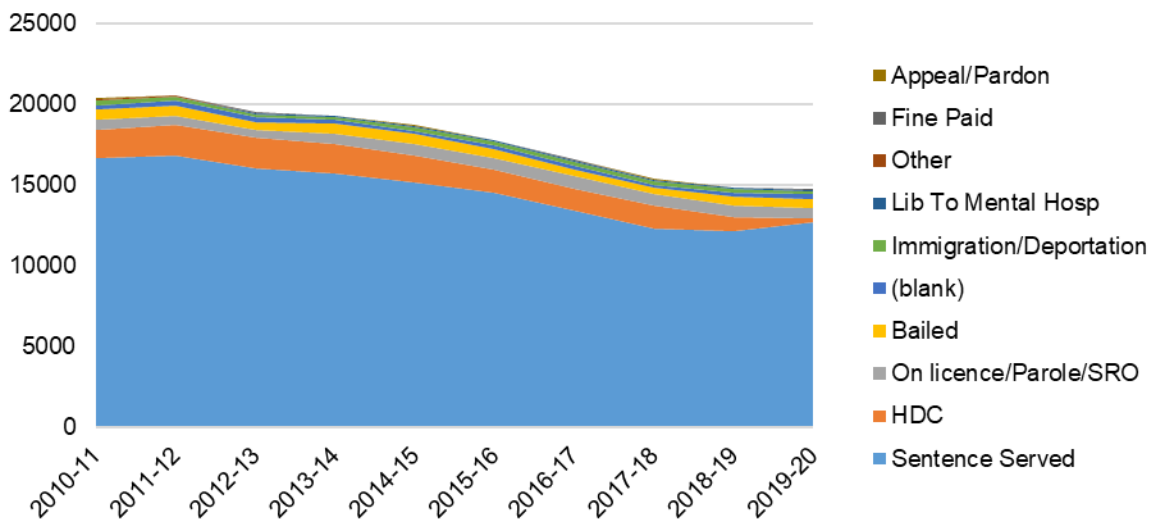
In 2019-20, 86% of departures from prison were due to the prisoner's sentenced being expired. This had increased from previous years, when it was typically around 82% (Figure

¹³ Scottish Criminal Proceedings Statistics, 2018-19, Table 10(d): <https://www.gov.scot/publications/criminal-proceedings-scotland-2018-19/pages/29/>

12). This is likely due to prisoners not being released as early as they might have been in previous years.

Between 2010-11 and 2017-18, around 8% to 10% of departures were prisoners leaving on home detention curfew (HDC)¹⁴: between 1,400 and 2,000 departures per year. Due to a change in directive on granting release on HDC, by 2019-20 this proportion had dropped to around 1% of departures, with only 196 in 2019-20.

Figure 12: Departures fall in line with reduced flow; Home detention curfew liberations fall after 2017-18



The reduction in release on HDC coincides with the growing average prison population between 2018-19 and 2019-20. Although unlikely to be the sole factor at play, reducing avenues for early release from prison increases the length of time an individual will spend in custody and therefore contributes to increases in the full-year population (see section 5).

For further information on the different types of departure listed above, see section 6.3.

4.3 Overall Time in Custody

(Data table C2)

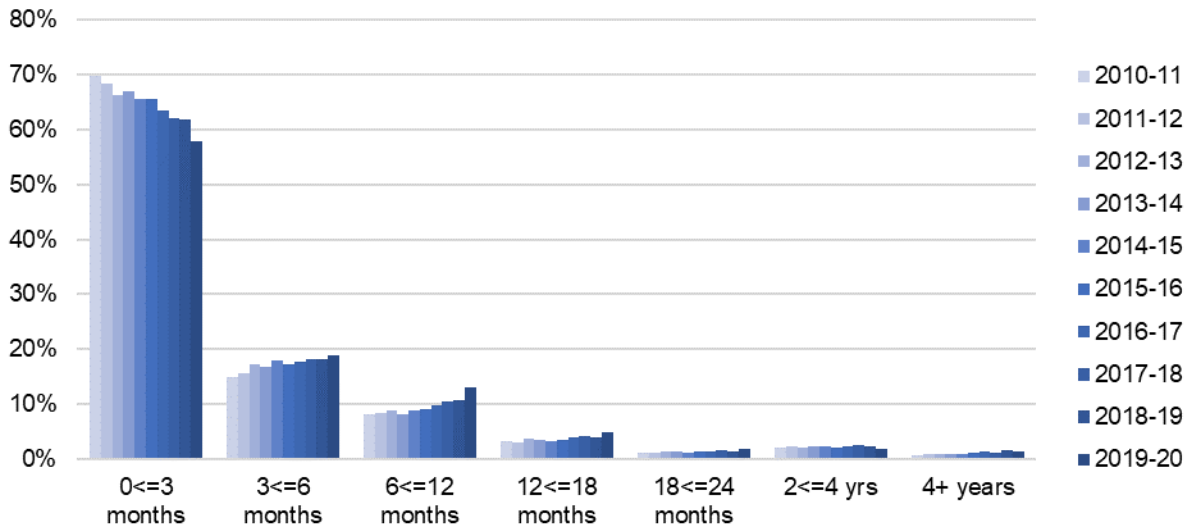
It is not yet possible to compile information about sentence length, legal status or offence type in this developing statistical source. However, it is possible to indicate trends in sentencing based on how long an individual serves prior to their departure from prison.

It should be noted that the length of a stint in prison does not, in most cases, equate to the length of sentence they have received. On short term sentences (less than 4 years), prisoners are typically eligible for release at the half-way point of their sentence. Some individuals spend time in prison unsentenced – ie. on remand. Whether this time spent on remand counts towards time served on a sentence varies between cases, which will change the total time an individual serves in prison for a given sentence.

¹⁴ HDC allows prisoners to be released early from prison on an electronic monitoring tag

Between 2010-11 and 2019-20, the proportion of individuals who depart prison having served up to 3 months fell from 70% to 58% (Figure 13). The proportion who served a year or more went from 7% of departing prisoners in 2010-11 to 10% in 2019-20.

Figure 13: The proportion of prisoners departing having served 3 months or less has fallen, while longer stints have increased as a proportion of all departures



4.3.1 Average length of stint by age

(Data table C3)

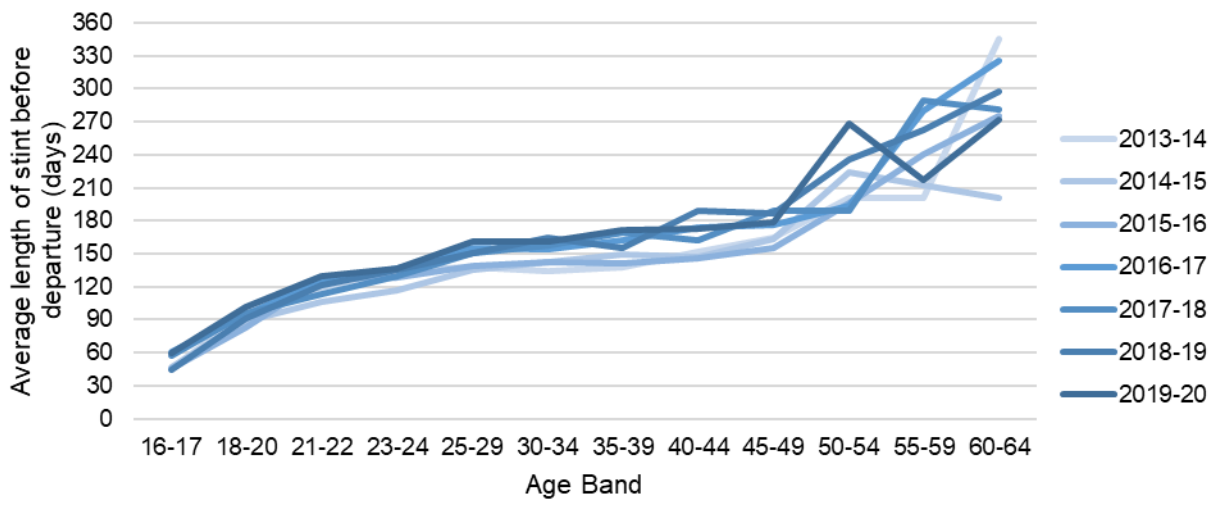
The length of time an individual has spent in prison prior to their departure¹⁵ is somewhat correlated with that prisoner’s age. Figure 14 shows this relationship across age bands: older individuals departing prison typically serve longer stints than younger people.

Older people departing prison spent longer on average in prison than younger people. The ageing population of prisons is therefore amplified when viewed in terms of daily average populations rather than in terms of people imprisoned¹⁶.

¹⁵ See section 4: Departures

¹⁶ See the associated Data Table B2 for average daily population statistics by age, also available at <https://scotland.shinyapps.io/sg-prison-population-statistics/>

Figure 14: Older people tend to have served longer on average in prison prior to each departure than younger people



5 Full- and Part-year Populations

(Data table B1)

Most of the prison population is not static. Individuals move in and out of the prison population on a daily basis.

For analysis in this report, individuals have been divided into two broad categories: those who arrive or depart¹⁷ one or more times in the course of the period of analysis (the “part-year” group); and those who remain in prison over the full period (the “full-year” group).

In the absence of sentencing information, the full-year group provides a potentially useful proxy for those individuals on longer sentences, comprising those individuals who spend a whole year or more in prison overall.

- In 2019-20, the **full-year** group consisted of 3,417 individuals who spent the entire year in Scottish prisons, while 13,877 made up the **part-year** group
- In 2019-20, this **full-year group was around 27% larger than in 2010-11**, when 2,699 people spent the entire year in custody
- The **part-year group was around 22% smaller than in 2010-11**, when 17,708 individuals moved into and/or out of custody one or more times in the year

Table 3: Total individuals divided into “full-year” and “part-year” populations

Financial Year	Total People	Full-year	% Full-year	Part-year	% Part-year
2010-11	20,407	2,699	13.2	17,708	86.8
2011-12	20,535	2,730	13.3	17,805	86.7
2012-13	19,922	2,861	14.4	17,061	85.6
2013-14	19,712	2,786	14.1	16,926	85.9
2014-15	19,334	2,831	14.6	16,503	85.4
2015-16	18,969	2,822	14.9	16,147	85.1
2016-17	18,105	2,839	15.7	15,266	84.3
2017-18	17,338	2,909	16.8	14,429	83.2
2018-19	17,447	3,135	18	14,312	82
2019-20	17,294	3,417	19.8	13,877	80.2

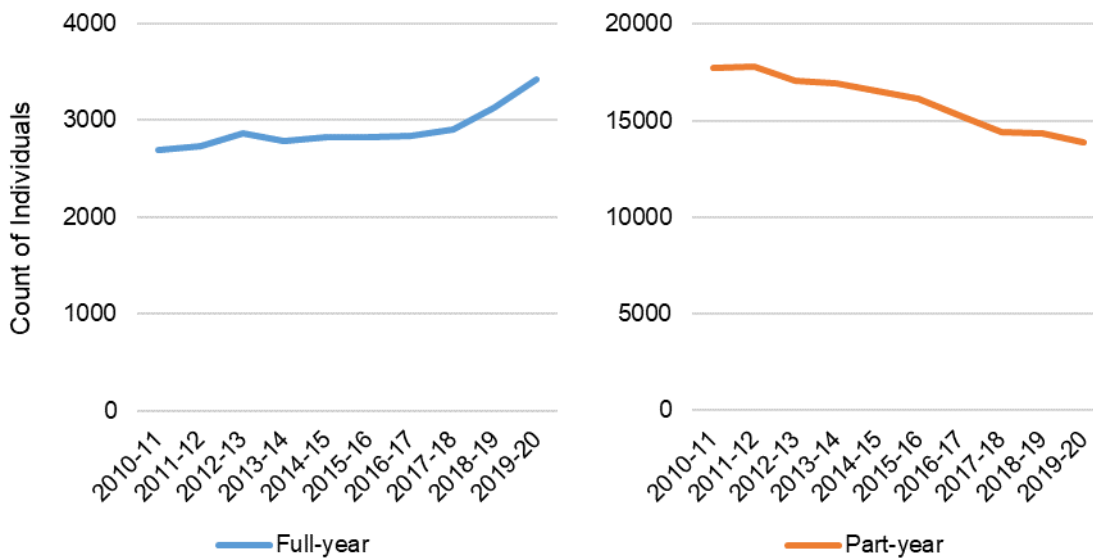
5.1 The Increasing Full-year Population

Figure 15 shows that full-year population levels were broadly constant between 2010-11 and 2016-17, but that there has been a rapid increase in the number of prisoners counted in the full-year group in 2018-19 and 2019-20: +226 people (+8%) and +282 people (+9%) respectively.

By contrast, over the past ten years, the part-year population has fallen more or less continuously by around 22% overall. Thus it appears it is the increase in the full-year population that has driven the recent sharp increase in the prison population overall.

¹⁷ See section 6.2: Arrivals and Departures

Figure 15: Rapid “full-year” population increase from 2017-18; Continuous “part-year” population decrease in the past ten years



It is likely that a number of factors have led to the observed shifts in the patterns of full- and part-year populations. The changes described above may reflect the multitude of legislative and policy changes implemented across the wider criminal justice system in recent years. The data presented here cannot attest to the impact of these on their own, but the context is important to consider in interpreting the patterns above.

For example, in terms of sentencing, the presumption against short term prison sentences was introduced in 2011, and extended to include custodial sentences of 12 months or less in 2019, with the aim of reducing ineffective use of custody and encourage community based sentences addressing offending and rehabilitation. Changes in sentencing practices over time are observed in the Criminal Proceedings in Scotland 2018-19 report¹⁸, with a steady increase in custodial sentences of more than one year.

Changes to release arrangements can impact the prison population. Automatic early release for longer term prisoners ended in 2015 and use of home detention curfew for short term prisoners¹⁹ was substantially reduced in 2018. Audit Scotland have also highlighted the stretching of financial resources and staff due to rising prisoner numbers as adversely affecting re-offending/rehabilitation programme completion and preventing prisoners from qualifying for release on parole.²⁰

Scottish Government Justice Analytical Services provide ongoing monitoring and modelling of change within the justice system. Recent analysis²¹ suggests that the above factors, in combination with historical improvements in clear-up and conviction rates, have impacted on the size and nature of the prison population.

¹⁸ <https://www.gov.scot/publications/criminal-proceedings-scotland-2018-19/>

¹⁹ Defined as those serving a sentence of less than 4 years. More information on HDC is available on the SPS website: <https://www.sps.gov.uk/Corporate/Information/HomeDetentionCurfew.aspx>

²⁰ Audit Scotland (2019) https://www.audit-scotland.gov.uk/uploads/docs/report/2019/s22_190912_sps.pdf

²¹ See Conlong (2019), available in addendum here: https://www.parliament.scot/S5_Public_Audit/General%20Documents/SG_SPS_20191216.pdf

However, modelling change also suggests that shifts in full- and part-year populations may reflect changes in the nature of offending coming to the attention of justice agencies, whether through shifting social norms and values and/or direct changes to legislation on criminal offences. The most recent Criminal Proceedings in Scotland 2018-19 release points to substantial rises in convictions for sexual offences (including rape and attempted rape) where the imposition of custodial sentences is highly likely²².

Examining the offence categories that prisoners received their custodial sentence(s) for and the length of sentences being served would allow further exploration of the role of these factors in the observed shifts in full- and part-year populations. However, at present it is not possible to provide historical information from the available data on offence types and sentence length. Scottish Government Justice Analytical Services are working to provide breakdown and analyses of these in the near future.

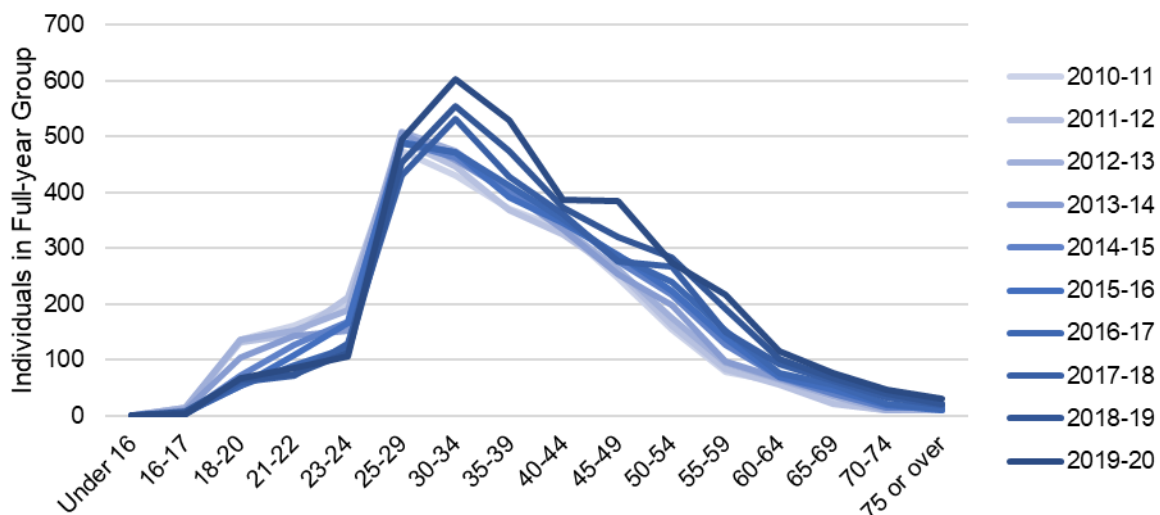
5.2 Demographic differences in full- and part-year populations

(Data table B5)

As the size of the full-year population changed, so did the age distribution of the people in this group. There is a fairly large reduction in the number of people under 25 in this group, even as the size of the full-year group is relatively stable in between 2010-11 and 2016-17 (Figure 16). From 2017-18 onwards, the number of people aged 30-39 increases relatively quickly. Throughout this time series, the number of people aged 50+ increases continuously.

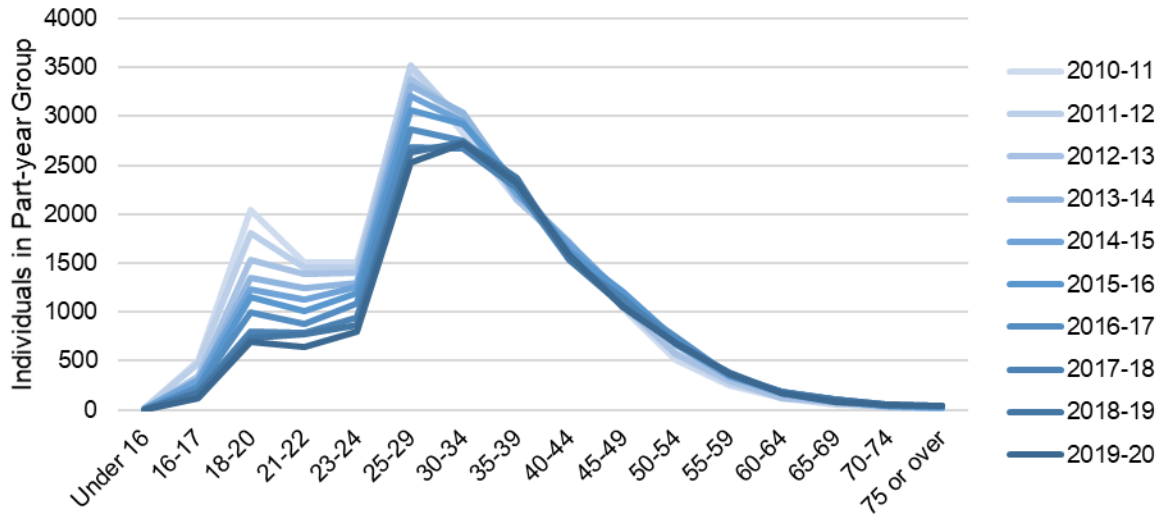
As the part-year population decreases, we can observe that this reduction occurs mostly among people aged under 35 (Figure 17).

Figure 16: The full-year population ages gradually between 2010-11 and 2016-17; this process accelerates as the group's size increases



²² See also Recorded Crime in Scotland 2018-19 for further context: <https://www.gov.scot/publications/recorded-crime-scotland-2018-19/>

Figure 17: The part-year population has fallen, primarily among younger age categories



6 Technical Annex

6.1 Determining Prison Occupancy: the “cellwise” method

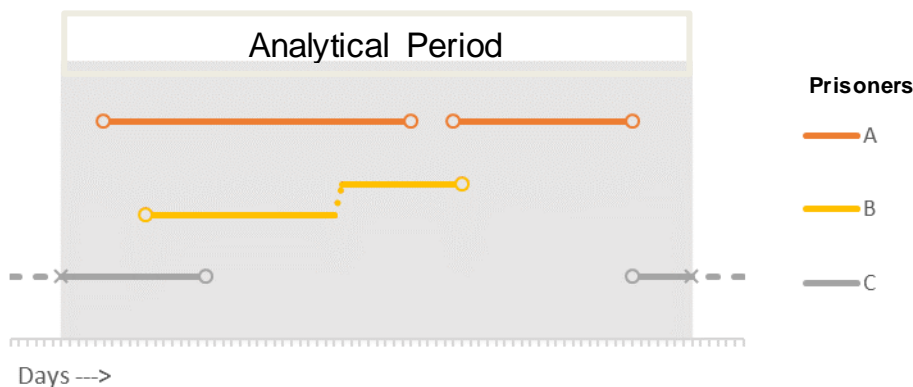
The most complete record of a prisoner’s presence in a prison establishment that is retained in sufficient detail historically on the SPS management information system (known as PR2) is the occupancy by prisoners of specific cells in the estate.

A stint in prison is defined as the period in which a prisoner has an allocated cell (or series of cells) in an SPS establishment. Prisoner A in the diagram below has two stints within an analytical period, represented by the dates that the cell was allocated to them and subsequently de-allocated.

Where a prisoner moves between cells but not between establishments, the stints are combined into a single, continuous period of occupancy in that establishment, as with Prisoner B below. Movements between establishments are kept separately to allow for prison-level analysis of the population.

For statistics within a defined time period (annual, quarterly, monthly), only presence within that period is counted. Prisoner C entered prison before the period began and has two stints. The second stint ends after the analytical period, but days served afterwards are out of scope.

Figure 18: Deriving stints in prison from PR2 cell data



6.1.1 Calculating Daily Averages

A prisoner’s occupancy (in days) within an analytical period provides each prisoner with a weight for analysis. For example the average population over a given period across the prison estate is the total number of prisoner days served, divided by the number of days in that analytical period.

When calculating the length of a stint, some edge cases exist: for example when a prisoner enters and leaves prison on the same day. Since the time of entry and exit are not recorded in these data, this would count as zero prisoner days, and therefore zero weight. To account for this, such stints are given a value of 0.25 prisoner days (6 hours) by default.

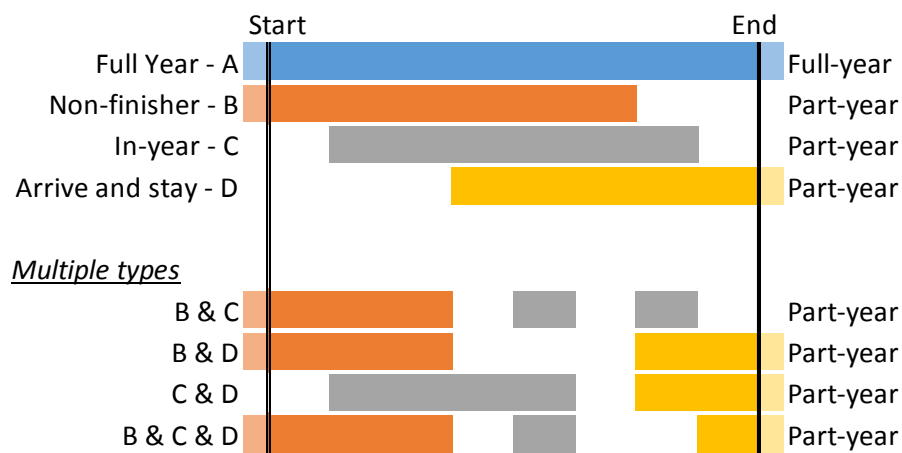
6.2 Arrivals and Departures

We can identify individuals who begin or end a stint within an analytical period, entering or leaving the care of the Scottish Prison Service. A prisoner **arrival** is a stint that begins on a separate day from the previous **departure** for that prisoner.

Prisoners who arrive or depart from the prison estate once or more in an analytical period are by definition the “part-year”. Prisoners who do not arrive or depart in an analytical period are the “full-year” group for that period.

The full schema of circumstances that would place a prisoner in either group is provided below. Note that further breaking down the part-year stock by the characteristics of their stints could lead to many additional categories.

Figure 19: Patterns of occupancy for individual prisoners in the space of a year



The following unusual cases do not remove an individual from the full-year population:

- A prisoner leaves and returns to a prison within the space of the same day (e.g. to visit court, make a short visit to a hospital, attend a family funeral, etc.)
- A prisoner leaves one prison and arrives at another Scottish prison within the space of a day, i.e. a prisoner transfer

6.3 Recorded Liberations

When a prisoner leaves prison and is not expected to return under the same legal basis, their liberation is recorded on the SPS management information system.

We have made a distinction here between “departures” – defined as a stint in prison ending and not immediately followed by a further stint – and “liberations”, where an individual has finished their period in custody and is released. A person in prison can have multiple departures and liberations within a year if they are released for short periods but subsequently return. Where a departure coincides with a Liberation record (+/- 1 day) that departure is counted as a Liberation. Where no Liberation is available, they are simply counted as departures.

People may leave prison without a liberation being recorded if their absence is temporary, for example if they are on leave to return home for a night or more. In these cases no liberation is recorded – the prisoner is still under the authority of the Scottish Prison

Service. These “non-liberation departures” are relatively few each year (1-2% of departures).

If a liberation record does not coincide with a departure, it is not included in these statistics. Similarly liberations to court are not included here – they generally occur in the middle of a stint in prison, after which a person would return to prison at the end of the day.

Table 4: Liberation types

Liberation Type	Interpretation
Sentence Served	The individual has reached their earliest date of liberation from their sentence and has been released
HDC	Home Detention Curfew – the prisoner serves the remainder of their sentence subject to specific conditions, including the wearing of an electronic monitoring tag
Bailed	A person on remand returned to court and was released pending further court attendance
On licence/Parole/SRO	A person returns to their community under a specific set of conditions. Breach of these conditions can lead to a return to prison
Immigration/Deportation	A person is removed from the country, removed to Dungavel Detention Centre, or leaves Scotland on the Early Removal Scheme
Fine Paid	A person imprisoned for non-payment is released after paying their fine
Lib To Mental Hosp	A person is moved to a psychiatric hospital ward
Appeal/Pardon	A person has their sentence overturned
Other	All other liberation types

People who have died in prison are counted in the “Other” category above. Deaths in custody are the subject of Scottish Prison Service reporting, available on the SPS website: <https://www.sps.gov.uk/Corporate/Information/PrisonerDeaths.aspx>

6.4 Postcode Quality

SPS is in the process of working backwards through prisoner records to improve the quality of postcode information held on PR2 in collaboration with data officers at the individual establishments across the prison estate.

One of the steps being taken is to apply the postcode of Council offices to people with no fixed abode. This process is currently incomplete, however future data releases will be able to include people of no fixed abode in the Local Authority disaggregated statistics.

Aside from records for prisoners of no fixed abode, many postcodes remain incomplete and therefore unmatchable to broader geographic characteristics. A further data improvement exercise by PR2 system administrators is in train, and the number of postcodes which cannot be matched is likely to fall as this proceeds.

The records marked as being “Address Outwith Scotland” leverage information from the “country” part of the address data where the supplied postcode cannot be matched. This group includes only records where the country is recorded as specific administrations in the UK (England, Wales, Northern Ireland) or non-UK countries, but does not include those cases where the country is given as “UK”, i.e. unspecified. Cases with unmatchable postcodes and where the country provided is either Scotland or is unspecified are gathered together under the “Unknown Address” category.

Table 5: Postcode data quality

Financial Year	Total Arrivals	Known LA	No Fixed Abode	Unknown Address	Address Outwith Scotland
2010-11	20,721	19,176	915	615	15
2011-12	20,958	19,305	947	696	10
2012-13	19,071	17,547	899	610	15
2013-14	19,306	17,759	976	558	13
2014-15	18,540	16,958	1,002	557	23
2015-16	17,905	16,260	1,069	527	49
2016-17	16,446	14,861	994	527	64
2017-18	15,324	13,813	980	480	51
2018-19	15,595	14,095	997	413	90
2019-20	14,324	12,825	1,072	129	298

Total Arrivals: The number of times someone arrives in prison in the period. Includes counting of multiple arrivals per person.

Known LA: The postcode provided by the person arriving in prison matches a known address in Scotland, allowing the derivation of further geographical information

No Fixed Abode: The person self-identifies as have no fixed abode on entry to the prison

Unknown Address: A postcode has been provided which cannot be matched.

Outwith Scotland: A postcode has been provided which cannot be matched AND the individual has supplied the country of their address as being outwith Scotland

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