

# Quality assurance of administrative data used in population statistics: Prisoners data

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## 1. Overview of prisoners data

<b>Data supplier:</b>	Justice Analytical Services within the Scottish Government
<b>Supplier info:</b>	Within the Justice Analytical Services Division, teams provide statistical information and support relating to police and community safety, court affairs and offenders, prisons and matters relating to civil and international law.
<b>Data type (counts or unit records)</b>	Counts
<b>Data content:</b>	Number of prisoners by sentence length, sex, age and prison establishment.
<b>Supply schedule:</b>	Annually: reflecting the prison population on 30 June (or as close to this date as possible) in a given year.
<b>Use of data:</b>	Mid-year population estimates Small area population estimates Sub-national population projections
<b>Matrix Score</b>	<b>A1 – Basic Assurance</b>
<b>Last updated</b>	06 October 2020

## 2. Data source information

Data on prisoners relates to the number of people who have been convicted of a crime by a court of law and sentenced to a jail term. For population statistics purposes, the prison population includes those who have been sentenced to six months or more at 30 June of the reference year. This group of prisoners are considered to be usually resident in the area where the prison is located. Prisoners with shorter sentences are assumed to be usually resident at their home address.

Each year data on the prison population held in prison establishments across Scotland are requested from the Justice Analytical Services Division. Prisoners are treated as a special population within the population estimates, as movements of people between prisons are not captured by the usual data sources used to estimate internal migration. Prison data is used in the mid-year population estimates to improve the age and sex structure of areas that contain prisons.

## 3. Operational context and administrative data collection (Data collection)

The Scottish Prison Service introduced a new management information system called the Prison Records System 2 (PR2) in July 2004. PR2 holds information about all prisoners in Scottish Prison establishments.

Data on the number of prisoners is extracted from the PR2 system by colleagues in the Justice Analytical Services Division. Although care is taken when processing the data, the detail collected is subject to the inaccuracies inherent in any large scale recording system. While the figures are the most accurate available at the time of receipt, they may be subject to minor revisions due to updating and on-going quality assurance.

#### **4. Communication with data supply partners**

Statisticians in the Population and Migration Statistics team contact colleagues in the Justice Analytical Services Division via email around eight months before publication.

The data requested is for counts of the prisoners held in Scottish prisons as at 30 June of the reference year. Tables outlining the format requirements and a list of the required variables are sent with the request for data. The variables requested are:

- Prisoner count
- Sentence length
- Sex
- Age
- Prison establishment

NRS have regular discussions with contacts in the Justice Analytical Services to get details on changes to the prison estate in Scotland or changes to the data. Any unusual trends or errors in the data are investigated and followed up with contacts in the Justice Analytical Services.

#### **5. Quality assurance principles, standards and checks applied by data suppliers**

Data on the prison population is derived from a single source which is also used to manage the prison population on a daily basis. This means that the data held on the PR2 system is routinely quality assured to rigorous standards and any quality issues are identified early on in the process to ensure accuracy and consistency as far as possible.

#### **6. Producer's quality assurance investigations and documentation**

When data is received from contacts in Justice Analytical Services, statisticians in the Population and Migration Statistics team carry out a number of checks to ensure the data is accurate. Checks are carried out to identify any new prisons or wings such as the addition of a female wing to a previously all male prison. The latest data is compared with previous data held. Any large differences are investigated by

checking against the prison capacity. Subtotals by establishment, sex and age are checked to ensure they add up to the total across Scotland. If any unusual patterns are discovered, Justice Analytical Services are contacted for confirmation and/or investigation.

## 6.1 Strengths and limitations of the data source

Strengths	Limitations
<ul style="list-style-type: none"> <li>Requirement for prisoners to be registered on PR2 system for daily management of prison population.</li> <li>It is expected the database will be sufficiently up-to-date.</li> </ul>	<ul style="list-style-type: none"> <li>Data may be subject to minor revisions due to quality assurance exercises.</li> <li>No information is available on place of previous (or next) usual residence which would allow a fully accurate account of moves between local authorities.</li> <li>The early release of prisoners may give rise to over count.</li> </ul>

## 7. Risk/Profile Matrix

This section contains a risk/profile matrix for the prison statistics. The matrix reflects the levels of risk of data quality concerns and the public interest profile of the statistics. These have been determined by a review undertaken by the NRS Population and Migration Statistics team using the information contained within the UK Statistics Authority's [Administrative Data Quality Assurance Toolkit](#). For the use of data for this project, the cell highlighted is appropriate:

Level of risk of quality concerns	Public interest profile		
	Low	Medium	High
<b>Low</b>	Statistics of low quality concern and low public interest. [A1]	Statistics of low quality concern and medium public interest. [A1/A2]	Statistics of low quality concern and high public interest. [A1/A2]
<b>Medium</b>	Statistics of medium data quality concern and low public interest. [A1/A2]	Statistics of medium quality concern and medium public interest. [A2]	Statistics of medium quality concern and high public interest. [A2/A3]

<b>High</b>	Statistics of high data quality concern and low public interest. [A1/A2/A3]	Statistics of high quality concern and medium public interest. [A3]	Statistics of high quality concern and high public interest. [A3]
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\*A1/A2/A3 – definitions supplied UK Statistics Authority’s [Administrative Data Quality Assurance Toolkit](#).

**Justification for Matrix Score**

The public interest profile has been set to high due to the use of population estimates and projections statistics to make decisions on resource allocation by central and local government.

The risk of quality concerns has been set to low given the requirement for prisoners to be registered on the PR2 system for management of prison populations on a daily basis and the routine quality assurance of the database.

The prison population make up a small part of the population in most areas across Scotland. Therefore, any inaccuracies in the prison population are likely to have a negligible impact on the population estimates for Scotland and its administrative areas. Inaccuracies in the data could have a larger impact on population estimates for small areas which are located around prisons, although detailed quality assurance also takes place during the production of the small area population estimates.

As the scores were deemed low for risk of quality concerns and high for public interest profile, the assurance rating was deemed by the Population and Migration Statistics team as A1: Basic assurance (highlighted in matrix above).

## 8. Useful links and contact details

You can access detailed statistics that we have produced from the [Statistics](#) section of our website. Scottish Census statistics are available on the [Scotland's Census](#) website.

We also provide information about [future publications](#) on our website. If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government [ScotStat website](#).

You can also follow us on twitter [@NatRecordsScot](#)

### Enquiries and suggestions

Please contact our Statistics Customer Services if you need any further information.  
Email: [statisticscustomerservices@nrscotland.gov.uk](mailto:statisticscustomerservices@nrscotland.gov.uk)

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