# Analysis of the determinants of the size and composition of the prison population in England & Wales

### **Findings**

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This document is being made freely available so that it may assist the development of evidence based policies and practice in the criminal justice sector

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#### Summary

1. This report has been compiled using a variety of data analysis and simulation methods, assessing published statistics on the operation of the criminal justice system in England and Wales. The main aim has been to help clarify the main determinants of the size and composition of the prison population, and to assist the development of evidence based policies and practice, exposing those factors which have contributed to the rise of the prison population and the persistence of current levels. The results of this quantitative work are summarised in the form of answers to four questions.

## A. Since 2006, what have been the most important determinants of the increasing prison population?

2. The introduction of the Criminal Justice Act 2003 and subsequent changes to sentencing practice have had major impacts, sometimes working in opposite directions:

a. Longer sentences for most offence types have added to the prison population

b. Indeterminate public protection (IPP) sentences have added to the prison population

c. Suspended sentences have acted to reduce pressure on prisons but will have drawn also from community sentences

d. Longer sentences and the introduction of post-licence supervision for short sentence prisoners in 2014 have added to the pool from which recalls to prison are drawn

3. The impact of austerity measures on police and other criminal justice agencies has focussed effort on more serious offences and prolific offenders. This has meant that:

a. the annual flow to sanction outcomes such as cautions, fines, and, to a lesser degree, community sentences have declined substantially

b. custody and suspended sentences have stayed broadly the same with minor falls in immediate custody taken up as suspended sentences

c. initial increases in the number sentenced for theft and robbery offences fell significantly from around 2010 (likely to be linked to abandonment of the serious crime target)

## B. Which offence groups currently represent the biggest volumes within the prison population?

4. The largest groups in prison by offence category are violent and sexual offenders

5. Those on long sentences represent by far the largest groups;  ${\sim}15\%$ , indeterminate sentences;  ${\sim}43$  %, for 4+ years

6. Recalled offenders in 2016 comprised  $\sim$ 9% of the population

7. Repeat offenders make up the largest groups in custody, or under supervision on suspended and community sentences. Over the period 2006 - 2016, prison has progressively come to hold the highest concentration of repeat offenders with multiple offences

8. The prison population has become progressive older

## C. What impact have mandatory minimums and IPPs had on the overall prison population, relative to other policy changes?

9. We estimate that the introduction IPP sentences, on its own, will have added to the prison population around 4,000 places

10. We estimate that the impact of sentence length inflation has resulted, by 2017, in around 12,500 more male prisoners

11. Combining these two changes (they are not additive due to various feedbacks in the justice the system, such as further offending) represents 15,000 more male prisoners by 2017

12. The number of female prisoners is not significantly impacted by these changes

13. Without the suspended sentence provisions of the Criminal Justice Act 2003, the prison population would have been  $\sim$ 10,000 higher for males and 3,000 for females, than current levels. This scenario assumes that both IPP and sentence length inflation remain in place.

## D. It would appear that more punitive sentence lengths have offset falls in the numbers before the courts, use of remand and time served. Can we test this?

14. The volumes of sentencing flows show that, whatever 'premium' might have been expected from a general reduction in the number of offenders entering the system, this has not significantly impacted on the rate of entry of first time offenders to prison.

15. The number of offences that are sufficiently serious to call for prison, notwithstanding any general presumption that the lightest sentence possible should be used for first time offenders, has remained broadly constant over the last 10 years.

16. The concentration of offenders with long criminal histories in prison is in keeping with the notion that prison is reserved for the most serious or prolific offenders, leaving little scope for any more general reduction of the number before the courts to have an impact.

#### 1. Analysis Plan

1.1 The study plan was framed against the following questions, aiming better to understand the historical drivers impacting on the size and make-up of the prison population in England and Wales.

## A. Since 2006, what have been the most important determinants of the increasing prison population?

\* Catalogue MoJ/HO initiatives over the past 10-15 years, starting with the 2003 Act, that represent key points in the development of the criminal justice system, and could provide an explanatory background to help interpret the results from a data analysis

## B. Which offence groups currently represent the biggest volumes within the prison population?

\* Draw on recently published Ministry of Justice statistics<sup>1</sup> carrying out a data analysis.

## C. What impact have mandatory minimums and IPPs had on the overall prison population, relative to other policy changes?

\* Drawing on (A) and (B) use the Justice Episteme Model<sup>2</sup> to explore the contribution between 2000 - 2017 of different sentencing or occupancy components, looking at their relative contribution.

## D. It would appear that more punitive sentence lengths have offset falls in the numbers before the courts, use of remand and time served. Can we test this?

\* Draw on (A), (B) and (C) and such other analysis as may be needed to explore how the flows of offenders in different categories, including first time and repeat offenders, help to shed light on the answer to this question.

https://www.gov.uk/government/statistics/criminal-justice-statistics-quarterly-december-2016

<sup>&</sup>lt;sup>1</sup> See quarterly statistics published in May 2017,

The information in these publications represents a secondary source and is taken at face value. It is subject to the qualifications about accuracy as published by the Ministry of Justice.

<sup>&</sup>lt;sup>2</sup> www.justice-episteme.com

#### 2. Legal and Financial Environment

2.1 The list below aims to cover the major initiatives<sup>3</sup> that will have shaped the course of the criminal justice system. We include in the list the austerity measures introduced from 2010, which have reversed a long period of growth in criminal justice budgets over the preceding decade. We expect the reduction in public sector budgets will also have had a very significant impact on the priorities and focus of the police and of other agencies.

#### **Table 2.1**

1. Criminal Justice and Police Act 2001, Penalty Notice of Disorder

2. Criminal Justice Act, 2003 - introduces Indeterminate Public Protection Sentences (IPP) and Extended Public Protection sentences (EPP) for dangerous offenders, a framework for Suspended Sentence Orders (SSO), conditional cautions. The Act establishes the Sentencing Council

3. IPP/EPP sentences implemented from April, 2005.

4. Tackling Knives Action Plan, 2008

5. Criminal Justice Act 2008 – Amended the dangerous offender provisions in the Criminal Justice Act 2003. Sections 13 to 17 restored a proportion of judicial discretion and imposed stricter criteria for the imposition of IPP/EPP sentences. Section 25 provided for the automatic early release of prisoners serving extended fixed sentences, instead of discretionary release by the Parole Board. These sections all came into force on 14 July 2008.

6. Coroners and Justice Act, 2009, criminalising possession of pornographic non-photographic images depicting under-18s.

7. April 2008 - government replaces the Offenders Brought to Justice target (which had seen a big rise in out of court diversions) with one placing more emphasis on bringing serious crime to justice. (Target had been introduced in 2001).

8. 2008/09 - police forces begin to roll out community resolutions.

9. May 2010 - serious crime target removed.

<sup>&</sup>lt;sup>3</sup> This list is not exhaustive, intended only to pick out major changes in the last 15 years

10. Knives/weapon murders: 25 year minimum term, 2010

11. April 2013 - LASPO Act changes to the Youth Out Of Court Diversion framework (introducing the youth caution and youth conditional caution) and restricting PNDs to adults only. CPS no longer has to approve adult conditional cautions

13. November 2013 - new guidance on adult simple cautions come into force. Restrictions on repeats, ban on use for indictable offences unless CPS approve and exceptional circumstances test for some either way offences e.g. sexual offences and knife crime.

14. October 2014 - Community Remedy comes into force (requires police to consult victims when giving a conditional caution or community resolution)

15. November 2014 - announcement about two-tier framework and OOCD pilot commences in three forces

16. Offender Rehabilitation Act, 2014, "Through the Gate" supervision

17. April 2015 - statutory changes on simple cautions come into effect (putting in place restrictions from November 2013 guidance).

18. Criminal Justice Courts Act, 2015, minimum sentence for a "second strike" conviction for possessing a knife. Minimum of 4 months for those aged 18+.

19. Serious Crime Act, 2015, a range of measures including on the scope of serious crime prevention orders and gang injunctions, new offences of sexual communication with a child and makes it illegal to possess paedophile manuals, criminalises patterns of repeated or continuous coercive or controlling behaviour against an intimate partner or family member.

20. The age of austerity in public finances triggered by the world financial crisis 2007-2009. For example police spending fell by 14% in real terms between 2010 and 2015<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Police workforce and funding in England and Wales, Institute of Fiscal Studies, 2017

#### 3. The Dynamics of the Prison Population

3.1 The prison population represents a level (or stock) with receptions and releases of offenders. The inflows are subject to (viewed from the perspective of prisons) a range of external factors and vary with time. What is also important is the distribution of custodial lengths. This distribution is the result of the collective effect of court sentencing decisions about how long each individual offender sent to prison should be in custody. Offenders given fixed length (determinate) custodial sentences are required to serve a proportion (now 50%), before being released to supervision in the community, on licence. Those who have received an indeterminate sentence, i.e. a life sentence or the (now abolished) IPP sentence, have to complete the court awarded tariff, the minimum period that must be served in custody before release to the community can be considered by the Parole Board. which makes a decision, whether to release or not, based on the risk of harm.

3.2 There are also feedbacks that contribute to the size of the prison population. These include: a further offence; a breach of the conditions of post-release supervision on licence; an activated suspended prison sentence for breach of its conditions; and, potentially, from a serious breach of the conditions of a non-custodial (e.g. community) sentence.

3.3 There is a further category of prisoner, those on remand awaiting trial or a sentencing decision. This group is intimately connected with the trial process and is generally used for cases presenting a higher risk or of absconding.

3.4 The dynamics, therefore, represent a complex interaction among the various flows, in and out of prison, along with court processes for remand and the custodial lengths for sentenced prisoners which determine the amount of time offenders spend in custody.



The composition of the prison population depends on:

#### 4. The Statistical Data Model

4.1 In order better to understand the published statistical data used in later sections, to explore the dynamics summarised in section 3, we describe here the main types of information examined in this report.

4.2 The analysis is in part based on a statistics package (see quarterly statistics published in May 2017<sup>5</sup>) and covers a core period from 2003 to 2017. This provides the possibility to generate various cross sectional views of sentencing outcomes and associated flows, the lengths of custodial sentences, as well as the composition of the prison population of each year. The dataset provides a limited opportunity to look longitudinally across 2003 to 2017 for changes that reveal how various factors may have influenced the size and makeup of the prison population.

4.3 However it is important to note that the offender population is heterogeneous. The factors set out below are generally used to describe the offender population and represent ways in which to define groups of offenders whose characteristics differ sufficiently for them to be considered separately, either because their offending behaviour is different or because the justice system treats them differently. These factors include<sup>6</sup>:

- Age generally Juvenile (15-17), Young Adult (18-20) or Adult (21+)
- Gender Male and Female
- Criminal history characterised at its simplest level by the number of previous convictions
  - + 01 First time offenders
  - + 02 1-2 previous convictions/cautions
  - + 03 3-6 previous convictions/cautions
  - + 04 7-10 previous convictions/cautions
  - + 05 11-14 previous convictions/cautions
  - + 06 15+ previous convictions/cautions
- Types of offences<sup>7</sup> -
  - + 01 Violence against the person
  - + 02 Sexual offences
  - + 03 Robbery
  - + 04 Theft Offences

<sup>6</sup> The analysis includes natural persons only.

<sup>7</sup> The published statistics are sometimes not consistent in the categories of offence or crime types. For example burglary is sometimes shown as a separate category. Where this occurs it is included in the analysis as a separate category.

<sup>&</sup>lt;sup>5</sup> https://www.gov.uk/government/statistics/criminal-justice-statistics-quarterly-december-2016

- 05 Criminal damage and arson
- + 06 Drug offences
- + 07 Possession of weapons
- + 08 Public order offences
- + 09 Miscellaneous crimes against society
- + 10 Fraud offences
- + 11 Summary offences excluding motoring
- + 12 Summary motoring offences
- Sentence or sanction outcomes
  - + 1 Absolute discharge
  - + 2 Conditional discharge
  - + 3 Fine
  - + 4 Community sentence
  - + 5 Suspended sentence
  - + 6 Immediate custody
  - + 7 Other
  - + 8 Caution
- Custody lengths
  - 3 months and less + More than 3 months and under 6 months + 6 months + More than 6 months and up to 9 months + More than 9 months and under 12 months + 12 months + More than 12 months and up to 18 months + More than 18 months and up to 2 years + More than 2 years and up to 3 years + More than 3 years and under 4 years + 4 years + More than 4 years and up to 5 years + + More than 5 years and up to 7 years More than 7 years and up to 10 years + More than 10 years and less than life + Extended Determinate Sentences (EDS) + Indeterminate Sentence (IPP) + Life +
- Other categories
  - + Remand
  - + Recalled

4.4 These categories are, of course, aggregations. For example offence types are drawn from the full range of (more than a hundred) sentencing codes and form convenient classes - at least in terms of the way data have been published. Moreover, these categories are in themselves heterogeneous: they contain offences that span the full range of sanction

outcomes, and, for custody, sentence lengths. For example in the case of "violence", for those sent to prison, sentence lengths will range from a short custodial spell of a few weeks or months to life imprisonment. So while they can provide one component view of the make-up of the prison population, this must be combined with other factors in order to see the underlying trends.

#### 5. The Main compositional categories of the prison population

#### 5.1 The sentenced prison population, males, all ages

#### **Top points**

5.1.1 The vast majority of male sentenced prisoners are serving long sentences. It is also striking that a significant proportion are offenders who have been recalled from supervision in the community.

5.1.2 Figure 5.1.1 shows the composition of the male *sentenced* prison population in 2016 by sentence length:

- Approx. 58% are serving sentences of 4+ years
- Approx. 25% are serving sentences of 12 months to 4 years
- Around 8%% are serving short sentences of less than 12 months
- Around 9% are recalled to prison



Figure 5.1.1 Custody composition by length of prison term 2016

#### **Top Points**

5.1.3 Persistent offenders make a very large proportion of almost all male sentence length categories. This is particularly true for the shorter sentences and for those recalled back to prison

5.1.4 First time offenders generally make a small contribution to the total, although this does increase for the longer length sentences.

5.1.5 Figure 5.1.2 shows the composition in terms of persistent offenders of each sentence length category. Prison is mostly reserved for repeat offenders except for the more serious offences (as measured by the length of sentence given by the court). Repeat offenders are much more likely to be recalled to prison.



### 5.1.2 Male custodial composition: Sentence Length and convictions profile 2016

5.1.6 Figure 5.1.3 shows the change in custodial profile of male prisoners, in terms of previous offending, comparing 2006 and 2016. The profile is very similar and while there are some differences it is not certain, without access to the source data on which the statistics are based, that these differences are statistically significant. Nevertheless the change is consistent with other changes noted in the flows (see section 7).



Figure 5.1.3 Custodial profile 2006 to 2016, proportion of previous convictions

#### 5.2 Changes in the age distribution of the male custodial population

#### **Top Points**

5.2.1 Overall the male prison population in 2017 is significantly older than that in 2002. Figure 5.2.1 shows that the 30-39 age band comprises the largest component of those sentenced to custody. While this has remained broadly stable between 2002 and 2017, the proportion of those aged 40+ has increased while those younger than 25 has declined.



Figure 5.2.1. Change in custodial age distribution 2002 to 2017

5.2.2 Figure 5.2.3 gives an alternative view using the cumulative distribution function (CDF) where the median age (0.5 point) has moved from 28 years in 2002 to 33 years. It also shows that the proportion of those 20 years or less has reduced by around a third between 2002 and 2017.



Figure 5.2.3 Change in custodial age Cumulative distribution function, 2002 to 2017

# **5.3 Composition of the male sentenced population (all ages) by type of offence**

#### **Top Points**

5.3.1 From figures 5.3.1 and 5.3.2, violent offenders make up the largest group of male prisoners, around 28%. The size of this group has risen from approx. 11,000 to approx. 19,000 over the period 2002 to 2010 and has remained at around that level since then. The number of sexual offenders in custody has also grown very substantially from around 5000 in 2002 to approx. 12,000 in 2015. Other categories have remained largely the same and some have declined.



Figure 5.3.1 The male (all ages) prison population by principal offence, 2002 - 2017



Figure 5.3.2: Custodial population percentage composition 2002 -2015

# 5.4 Composition of the male sentenced population (young adults, 18-20) by type of offence

#### **Top Points**

5.4.1 Figure 5.4.1 shows the composition by offence type for young adults. Violent offenders again comprise the largest group, rising to a peak between 2008 and 2010, and falling thereafter. Most other categories are steady or in decline over the period. Those sentenced for sexual offences in this group do not show the marked rise in figure 5.3.1, implying that the increase, in the main, is due to older adult offenders.



Figure 5.4.1 The male (18-20) prison population by principal offence type, 2002 to 2017

## 5.5 Composition of the male prison population (juveniles, 15-17) by type of offence

#### **Top Points**

5.5.1 For male juveniles offenders in custody, figure 5.5.1 shows that the number across all categories has fallen over the period 2002 to 2015. Prison is mainly reserved for adult offenders.



Figure 5.5.1 The male (15-17) prison population by principal offence type, 2002 to 2017

# 5.6 Composition of the female prison population (all ages) by type of offence

#### **Top Points**

5.6.1 For female offenders serving prison sentences, figure 5.6.1 shows that the largest group switched from drugs offences to those whose principal offence has been violence. Other categories have stayed more or less steady over the past 15 years.



Figure 5.6.1 The female prison population by principal offence type, 2002 to 2017

# 5.7 Composition of the female prison population (young adults, 18-20) by type of offence

#### **Top Points**

5.7.1 For young adult female offenders serving prison sentences, figure 5.7.1, the largest group switched from drugs offences to those whose principal offence has been violence. However, unlike the general picture (figure 5.6.1) which includes all adults, the violence component too is showing a rapid decline from 2010. Other categories have stayed more or less steady over the past 15 years.



Figure 5.7.1 The female (18-20) prison population by principal offence type, 2002 to 2017

#### **5.8 Male and Female Remand Population**

#### **Top Points**

5.8.1 The combined male and female remand population (stock) has been between 12,000 and 13,400 up until 2010; but has declined since 2013 down to 9300 - see figure 5.8.1

5.8.2 The male remand population, has been between 11,000 and 12,000 until 2010; but has shown a falling trend starting from 2013 to approx. 8,800 by 2017

5.8.3 The female remand population, figure 5.8.2, has shown a steady decline from around 1000 to about 500 over the past 15 years.



Figure 5.8.1 Male & female remand population by age band, 2002 to 2017



Figure 5.8.2 The female remand population by age band, 2002 to 2017

#### **Top Points - main remand offence types**

5.8.4 Violence, drugs and theft are the major offence categories for the remand population



Figure 5.8.3 Remand population (male & female) by principal offence type, 2002 to 2017

#### 5.9 Analysis of how the remand population has changed over time

#### **Overview**

5.9.1 This section provides an analysis of the rates of custodial remand decisions, looking at the breakdown by gender, court type and offence type. The compositional aspects of the remand population were covered in section 5.8. The remand occupancy levels in prisons - see figure 5.8.1 - depend on the length of time spent on remand. The average period spent on remand can be estimated from the annual rates discussed below to be around 2.5 months, although the distribution of remand periods can be expected to have a significant "tail".

5.9.2 Figures 5.9.1 to 5.9.8 relate to the flow of persons into custody on remand, both in absolute terms and in proportionate terms, that is as a *fraction of the number of persons remanded for each offence type of the total number for that type*. They cover males and females, and for each court type. The data cover the years 2012 to 2016. This period is not as extensive as that covered in the data sets used in other parts of this report, but it is recent and therefore more representative of current practice. Paragraph 5.9.6 discusses, in more detail, the meaning of these charts.

5.9.3 The total annual rates across 2012 to 2016 were:

Туре	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Indictable	53927	58315	55586	50315	45750
Summary	12328	12902	12726	12926	11683
-	-	-	-	-	-
Total	66255	71217	68312	63241	57433

#### **Top Point**

5.9.4 The aggregate figures show a reduction, by 2016, of  $\sim$ 13% relative to 2012. The pattern, in terms of the dependency on offence type and the remand rate are also seen to be fairly constant over most of this period, except that the majority of the change is focussed on fewer *theft* related remand cases.

#### **Remand custody flows**

5.9.5 Figures. 5.9.1 and 5.9.2 for males and 5.9.5 and 5.9.6 for females show the volumes of cases coming through for magistrates and crown courts. The corresponding figures 5.9.3 and 5.9.4 for males, and 5.9.7 and 5.9.8 for females, compare the proportions of cases remanded into custody, breaking down the contribution that each particular class of crime makes. For example figure 5.9.1 shows that, in volume, theft offences are the largest category. However as a proportion of all theft cases coming before the courts, they are  $\sim$ 25% in magistrates courts (Fig 5.9.3) and 40-50% in crown court cases (Fig 5.9.4). This is a reflection of the more serious nature of crown court cases. Similarly, while robbery offences are significantly fewer in number, they are far more likely to lead to a remand decision both in magistrates and crown courts, with remand rates of between 40-50% and 65-70% respectively. There is a similar pattern for sexual offences.

5.9.6. It is also to be noted that the "fingerprint" pattern of each annual histogram is very similar from year to year suggesting that remand decisions have been largely consistent over the period 2012 to 2016 and that the variation in the volumes over time is more a reflection of changes in the mix of cases than of approach by the courts.

5.9.7. In the case of female offenders, while the volumes are substantially lower, the offence type fingerprints show a very similar pattern to those of male offenders.

#### **Male offenders**



5.9.1 Remanded custody

Magistrates courts, Males - theft related remands in decline

5.9.2 Remanded custody



#### **Proportions, male offenders**



#### 5.9.3 Remanded custody, proportion of cases of each offence type

Magistrates courts, Males

5.9.4 Remanded custody, proportion of cases of each offence type Crown courts, Males



#### Female offenders



#### 5.9.5 Remanded into custody

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#### **Proportions, female offenders**



#### 5.9.7 Remanded custody, proportion of cases of each offence type

Magistrates courts, Females

5.9.8 Remanded into custody, proportion of cases of each offence type Crown courts, Females


# 5.10 Changes to the recall population over time

5.10.1 This section looks at the properties of the population of prisoners recalled from community supervision.

## **Overview**

5.10.2. Data on the recall prison population have only more recently started to be collected in a rich format. As in other flow/stock analyses there are two aspects to consider: the population levels in custody and the rate at which those under supervision in the community are being recalled either for breach of their conditions or as a result of a further offence (where a further prison sentence could also come into play at some point). It should be noted that not all breaches of supervision or licence conditions will result in a recall to prison. In the cases of suspended sentences which are activated the same considerations would be likely to apply<sup>8</sup>.

## Variation of the recall population levels

5.10.3. Figure 5.10.1 shows the reported occupancy levels in prison of those who have been recalled. The breakdown is by gender and it is clear that female offenders are a small fraction ( $\sim$ 4%) of the total which has generally been increasing from  $\sim$ 5500 to  $\sim$ 6400 places, the increase is attributable to male offenders.



#### 5.10.1 Number of offenders in prison following recall

<sup>&</sup>lt;sup>8</sup> NB: It's not completely clear from the data whether or not SSO activation is included. It is assumed here that it is (as a determinate sentence) but this is being checked with the MoJ

## Variation in the flow of recall cases

5.10.4 This section looks at the flow of recall cases categorising the flow by reasons for recall and by sentence type. The data cover five quarterly periods from April 2016 to March. 2017.

#### **Reasons for recall**

5.10.5 Figures 5.10.2 to 5.10.5 show the contribution in terms of reasons:

- \* Drugs/Alcohol abuse
- \* Failing to keep in touch
- \* Failing to comply with residence requirements
- \* A further offence/charge
- \* Other non-compliance, and
- \* Other reasons

5.10.6 Figures 5.10.2 and 5.10.3 contrast recalls from short sentences (<12 months) with longer sentences (12+ months). In keeping with the more 'recidivist' character of the under 12 month group, this shows that non-compliance (as a collective category) and failing to keep in touch make the largest contributions, followed by a further charge. For those on longer sentences a further offence is in the top two, along with non-compliance.

5.10.7 Figures 5.10.4 and 5.10.5 covering IPP and Life sentences show a similar pattern as for longer determinate sentences.



5.10.2 Reasons for Recall



Offence type Drugs/alcohol Failed to keep in touch Failed to reside Further charge Non-compliance

Other

5.10.3 Reasons for recall From determinate sentences over 12 months





## **Recall, flows**



5.10.7 Recall to custody, quarterly rates Female offenders



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# 5.11 Changes in the age profile of those sentenced to custody

5.11.1 This section looks at whether falls in the juvenile and young adult custodial populations were replicated in the 21- 24 age category

#### **Overview**

5.11.2 The analysis of the composition of the prison population showed that the number of juveniles and young adults coming into the system had substantially reduced over the past decade. Figure 5.2.1 in particular covered the age composition of the prison population along a full range of age bands. This is repeated below, but focussing on those aged under 29. It can be seen that the number of those aged 21 - 24 has also been steadily falling; however the age band 25 - 29 has remained broadly static.

#### **Top Points**

5.11.3 While looking at the occupancy level is not as definitive as an analysis of the flow of offenders being sentenced (for whom the data cover all aged 21+ and so not so useful in terms of the age band of interest here) it is nonetheless highly suggestive that the number of all offenders aged under 25 has been falling significantly over the past decade.



5.11.1. Change in custodial age distribution 2002 to 2017

# 6 Changes to custodial sentence lengths

# 6.0 Overview of changes for determinate sentences

6.0.1 As noted at paragraph 3.1, the levels of the various cross-sectional components of the prison population are in part determined by the custody lengths. The published statistics allow the distribution of sentence lengths for various offence types to be established. These distributions relate to the sentencing flow - looking at the stock would give a distorted picture since it would be biased by those on long sentences. It is known that sentence lengths have increased over the past 15 years and this analysis seeks to establish where these changes have taken place, looking in particular the various offence types<sup>9</sup>.

6.0.2 Examining the sentencing flows would give us a better picture of the practical effect<sup>10</sup> of changes in sentencing over the past decade. There are two ways we can assess this:

- changes in the *average* sentence length for each offence category. This gives an overview but will not reveal the potentially important variation within each category
- changes in the full cumulative distribution function (CDF). This provides more information about the full range of sentence lengths for a given offence type.

6.0.3 Looking at the full distribution of custodial lengths is more informative because, for each offence type, there will be a range of custodial lengths representing the spectrum of sentences handed down by the courts reflecting the seriousness of cases. For example the category violence will include prison sentences ranging from a few weeks to very long tariff life sentences. The analysis below compares the custodial lengths for *determinate* sentences using the CDF to describe the variation of sentence lengths within each offence type. This is derived from the data published by the MoJ and shows the fraction of sentences that are less than a specific length value on the ordinate axis. This holistic picture makes it easier to compare different offence types or the same offence type for different years. In particular we can look for changes

\* in the shape of the curve which will show, within each offence type, how custodial lengths have varied

\* to the position of the curve - the further to right the longer the shift in sentence length it represents

\* in the contribution an offence type makes relative to the average CDF across all types

<sup>&</sup>lt;sup>9</sup> See paragraph 4.3

<sup>&</sup>lt;sup>10</sup> Since offence categories are mixtures of subcategories of offences, it's not possible, without further analysis, to establish whether a change is caused by longer sentences or changes to the mix over time with serious offences more heavily represented, or, more likely, both. This is particularly true for general categories e.g. public order, miscellaneous offences, criminal damage and arson.

Looking at these distributions can, therefore, provide a quantitative overview of the structure of sentencing and how that has changed over the past decade.

6.0.4 The average change in sentence lengths is covered in this section. CDFs are also examined for some offence types showing large changes in section 6.2. Section 6.3 explores in more detail how sentence lengths have changed over time. A full set of analysis graphs and tables is given in Annex A.

# 6.1 Male Offenders

## 6.1.1 Changes to the average

## **Top Points**

6.1.1 Over the period 2006 to 2016, for male offenders, the largest increases in the *average* prison sentence length, figures 6.1.1 & and 6.1.2, show that

- \* sexual offences increased from 42 months to 62 months (~50%)
- \* robbery, increased from 33 months to 45 months (~ 30%)
- \* criminal damage and arson, increased from 12 months to 27 months (~125%)

Increases in sentence length in other offence types have been generally of a lesser scale<sup>11</sup>, and for public order offences there has been a reduction. It is interesting to note that sentences for violent offences have increased but not by such a large margin. However, since the flow of prisoners sentenced for a violent offence is quite high ( $\sim$  10,000 per year, see section 7.2) even small changes to sentence lengths can have a cumulative impact, increasing the population level.

<sup>&</sup>lt;sup>11</sup> In the case of fraud for example, which has shown an increase (see Annex A.1) the volume is very low (see section 7.11) and so fraud cases do not have a big impact on the composition of the prison population.



Figure 6.1.1. Males: Average custodial length by offence type 2006 -2016





## 6.1.2 Analysis of selected offence types – male offenders

## (a) Violence against the person

## **Top Points**

6.1.2 The full CDF for violence offences, figure 6.1.3, shows a mixed picture. There is a "tipping point" at 48 months, above which sentences becoming longer in 2016 relative to 2006, and the reverse below that point. This suggests that more serious offences were treated more punitively in 2016 and, conversely, less serious violent offences received shorter prison sentences by comparison to 2006. Section 6.3 looks in more detail at the variation with time of custody lengths.



# (b) Sexual offences

## **Top Points**

6.1.3 Sexual offences represent a category where custodial lengths have grown by a large absolute amount. For example the average has grown by 50% between 2006 and 2016<sup>12</sup>. However, the change has not occurred evenly: the change for those less serious cases attracting custodial lengths of less than 12 months is very much smaller and for less than 6 months indistinguishable. For cases attracting medium or long sentences the change has been much larger. This, coupled with the increasing number of sexual offence cases coming before the courts, has meant that the occupancy level of sexual offenders in prison has more than doubled <sup>13</sup>



Figure 6.1.4 Males: Sexual Offences & Average - Distribution of sentence lengths

<sup>12</sup> See paragraph 6.1.1

<sup>&</sup>lt;sup>13</sup> See paragraphs 5.3.1 and 7.3.1

# (c) Robbery

## **Top Points**

6.1.4 Robbery offences also represent a category where custodial lengths have grown by a large absolute amount – figure 6.1.5. The average has grown by ~30% between 2006 and 2016<sup>14</sup>. The change has not occurred evenly along the ordinate and there has been an effect even for short sentences (<12 months). However, the impact on this on the prison population has been offset by fewer robbery cases where there has been a dramatic fall from 2011<sup>15</sup>. This has meant that the occupancy level in prison for robbery offences has remained in the range of 7,000 – 8,000.<sup>16</sup>



Figure 6.1.5 Males: Robbery & Average - Distribution of custodial lengths

<sup>&</sup>lt;sup>14</sup> See paragraph 6.1.1

<sup>&</sup>lt;sup>15</sup> See paragraph 7.4.1

<sup>&</sup>lt;sup>16</sup> See paragraph 5.3.1

# (d) Criminal damage & arson offences

6.1.5 The category of criminal damage and arson offences shows some large changes. This category contains a mixture of potentially very serious offences such as arson or criminal damage endangering life, along with less serious offences. For example, in 2006, approx. 60% of those sentenced in this category received less than 12 month sentences. However by 2016 that proportion had fallen to around 33%.





## **6.2 Female offenders**

## 6.2.1 Changes to the average

## **Top Points**

6.2.1 Figures 6.2.1 and 6.2.2 show that over the period 2006 to 2016, for female offenders, the largest increases in the *average* prison sentence length were

- \* sexual offences increased from 42 months to 52 months (~25%)
- \* robbery, increased from ~20 months to 36 months (~ 80%)
- \* criminal damage and arson, increased from 12 months to 27 months (~125%)

The changes here follow the same pattern as for men, i.e. custodial lengths for serious offence types have increased and those of other offence types have remained broadly the same or have fallen. However, the number of cases of serious offences such as sexual offending or robbery is quite low (see section 7) and the predominant offence type for women being theft. This means that custodial length inflation has not impacted on the female prison population to the extent that it has for men, and has remained broadly static over the last 10 - 15 years.



Figure 6.2.1. Females: Average custody lengths by offence type 2006 -2016



Figure 6.2.2. Females: Average custody lengths by offence type 2006 -2016

## 6.2.2 Analysis of selected offence types – female offenders

6.2.2 The full set, by offence type, of sentence length distributions for women offenders is available in Annex A.2. The details differ somewhat to those for male offenders. However, the most significant increases have occurred for those offence types that include serious offences, violence, robbery, arson and sexual offences. It should be noted that the distributions for female offenders are based on smaller numbers, by a factor of the order 10 or more, compared to male offenders. Nevertheless the patterns of change are quite similar to those seen for male offenders, even though the graphs will also be subject to wider annual fluctuations in case mix within each offence type.

# 6.3 Changes with time to the overall distribution of sentence lengths

6.3.0 In this section we seek to understand, in more detail, how the overall<sup>17</sup> *distribution* of sentence lengths has changed with time

## **Overview**

6.3.1. Figure 6.3.1 shows how the average distribution (over all offence types) has changed over past decade, looking at 3 (spot) years 2006, 2011 and 2016.

6.3.2. Years 2006 and 2011 mostly overlap; 2016 shows most of the deviation, suggesting that, in aggregate terms at least, most change took place after 2011.

6.3.3. Figures 6.3.2a to 6.3.2c, illustrate the complexity of the composition of the average from the contributions of the individual offence types - again for the three spot years.

6.3.4. As already noted, changes to sentence lengths for the individual offence types have not been uniform, nor always in the direction of sentence length inflation. Figures 6.3.2d to 6.3.2.h show the three spot years for each of the offence types, augmenting analysis of custodial lengths in section 6.2.

6.3.5. Figures B.2i to B.2k show the full set of years giving examples where significant change has taken place and where it has not. The charts are a little hard to read because of the number of lines, but they do convey a sense of the *evolution* of the distribution of sentence lengths.

## **Top Point**

6.3.6. Changes to prison sentence lengths have not impacted in a uniform manner across the various offence types or to the same degree across the 11 years covered by the data. The average effect of all sentences is a complex blend of the distributions for each offence type, weighted by the respective volume of sentences.

<sup>&</sup>lt;sup>17</sup> As noted earlier the overall distributions will be influenced by the mix of cases for particular offences as well as changes to the custodial lengths for particular offences.



# 6.3.1 Distribution of average custodial lengths over time

# 6.3.2 Composition of the average from individual offence types



6.3.2a Distribution of custodial lengths

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# 6.3.2c Distribution of custodial lengths



# 6.3.2d Distribution of custodial lengths lence, Sexual offences - variation with time 2006, 2011 and 20





# 6.3.2f Distribution of custodial lengths



# 6.3.2g Distribution of custodial lengths

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6.3.2h Distribution of custodial lengths Public Order & Miscellaneous - Variation with time 2006, 2011 and 2016

# 6.3.3 Interesting cases

# 6.3.3.1 Sexual Offences



# 6.3.3.2 Robbery Offences



# 6.3.2j Distribution of custodial lengths

# 6.3.3.3 Theft Offences



# 6.3.2k Distribution of custodial lengths

# 6.3.3.4 Violence Offences



# 6.3.2k Distribution of custodial lengths

# 7. The Flows of Offenders into Custody

# 7.0 Sentencing flows for all sanction outcomes

7.0.1 While in many cases it is clear that a serious crime will lead to custody, in many other cases courts will have a choice. Depending on the details of the individual case and the circumstances of the offender concerned, a suspended sentence or a community sentence may be more appropriate alternatives to immediate custody. In the case of suspended sentences<sup>18</sup>, when a court imposes a custodial sentence of between 14 days and two years (or six months in the magistrates' court), the court may choose to suspend the sentence for up to two years. The effect is to defer custody for the period of suspension giving the offender a chance to stay out of trouble and to comply with any requirements set by the court. These requirements include, for example:

- doing unpaid work;
- being subject to a curfew;
- undertaking a treatment programme for alcohol or drugs;
- being subject to a rehabilitation activity requirement.

If the offender does not comply with the requirements or is convicted of another offence during the suspension period, they are likely to serve the original custodial term in addition to the sentence they get for any new offence. Suspended sentences are served in the community under probation supervision.

7.0.2 In looking at how the custodial inflow has changed over the past decade, it is also important to consider how courts' choices, in exercising their judgment and discretion, impacted cases that 'lie at the boundaries' between these sanction outcomes. Figures 7.0.1 (males) and 7.0.2 (females) show custodial sentences in the context of all eight sanction outcomes (see paragraph 4.3).

7.0.3 Figures 7.2.1 et. seq. summarise a longitudinal perspective giving, for each offence type, the number of those sentenced to each of the outcomes, custody, suspended sentence (SSO) and community sentence (CS). We focus on this set since we are interested in understanding the composition of the prison population, with suspended and community sentences offering realistic alternatives to prison for less serious cases. Also shown in these figures is the total for this narrower set of sanctions. A broader analysis of possible shifts among sentence outcomes can be found in section 7.14.

<sup>&</sup>lt;sup>18</sup> See section 189 Criminal Justice Act, 2003

## **Males Offenders**

#### **Top Points**

7.0.4 The flow of male offenders into the criminal justice system between 2006 and 2016 shows that:

- Cautions have the most dramatic falls
- Custodial sentences have fallen by about 12%;
- Suspended sentences have almost doubled;
- Community sentences have halved

The overall picture suggests a system focussing on more serious cases, impelled by the legislative changes of the past 15 years and the operational pressures arising from austerity based budgets.



Figure 7.0.1 Sanction outcomes, Males, all offence types 2006 - 2016

# **Female Offenders**

## **Top Points**

7.0.5 The overall picture for female offenders is similar to that for males.



Figure 7.0.2 Sanction outcomes, Females, all offence types 2006 -2016

# 7.1 The flow of male offenders into custody, suspended sentences and community sentences by offence type.

# 7.2 Violence

## **Top Points**

7.2.1 From figure 7.2.1, community sentence (CSs) outcomes for violent offences have fallen by about 45% between 2006 and 2016 - from around 9,000 to 5,000 per year; custody and suspended sentences have risen, though, in proportionate terms, this has been larger for suspended sentences.



Figure 7.2.1. Males: Sentencing flows for violence 2006 - 2016

## **7.3 Sexual Offences**

#### **Top Points**

7.3.1 From figure 7.3.1 the number of male offenders sentenced for sexual offences has increased by about 50%, from approx. 2900 to 4500 over the period 2006 to 2016. Suspended sentences also increased from approx. 500 to 1000 sentences per year, while community sentences remained broadly the same.





## 7.4 Robbery

#### **Top Points**

7.4.1 From figure 7.4.1, robbery sentences have fallen very substantially since 2011 for custody and community sentences; broadly stable for suspended sentences (these sentences represent an intermediate category between custody and community sentence). These falls may be linked with the removal of the serious crime target<sup>19</sup>.



Figure 7.4.1. Males: Sentencing flows for Robbery Offences 2006 - 2016

<sup>&</sup>lt;sup>19</sup> See table 2.1 (9)

## 7.5 Theft

## **Top Points**

7.5.1 From figure 7.5.1 community sentences for theft fell sharply starting from 2011; custodial sentences have also fallen from that date but at a significantly lesser rate. SSOs almost doubled from 5,000 to 10,000 suggesting that some of those previously destined for custody are now receiving suspended sentences. Again these changes may be linked to abolition of the serious crime target<sup>20</sup>.



Figure 7.5.1. Males: Sentencing flows for Theft Offences 2006 -2016

<sup>&</sup>lt;sup>20</sup> See table 2.1 (9)
#### 7.6 Criminal Damage & Arson

#### **Top Points**

7.6.1 From Figure 7.6.1 community sentences for criminal damage have declined sharply starting from 2006; custody sentences have also declined from that date reducing almost to half the 2006 rate while SSOs have remained broadly the same.



Figure 7.6.1. Males: Sentencing flows for Criminal Damage & Arson 2006 - 2016

(#) The total is for the three outcomes only

# 7.7 Drugs

#### **Top Points**

7.7.1 From figure 7.7.1 community sentences for drugs offences initially rose to a maximum of 12,500 in 2010 and declined to approx. 5000 by 2016. However, custodial sentences have remained broadly static at around 8000 per year, while SSOs have grown to approx. 5000 by 2016.



Figure 7.7.1. Males: Sentencing flows for Drugs Offences 2006 -2016

# 7.8 Possession of Weapons

#### **Top Points**

7.8.1 From figure 7.8.1 a fall in community sentences for weapons offences is tracked by an increase in custody and SSOs rates, converging to approx. 3000 for each sentence type by 2016. This suggests that there has been a shift in that weapons offences (at least the more serious cases) are preferentially given custodial or suspended prison sentences – the likely impact of the being tough on knife crime policy<sup>21</sup>.





<sup>&</sup>lt;sup>21</sup> See table 2.1 points (4) & (10)

# 7.9 Public Order offences

#### **Top Points**

7.9.1 From figure 7.9.1, the number of public order related sentences increased between 2006 and 2012; however, after that the annual rate fell for all three outcomes, custody, SSO and community sentence, to new levels that have remained broadly stable since 2014. It is interesting to note that, unlike the general trend, sentence lengths for public order offences in 2016 were shorter in 2016 compared to 2006<sup>22</sup>





<sup>&</sup>lt;sup>22</sup> See Annex A, figure CDF.8

# 7.10 Miscellaneous offences

#### **Top Points**

7.10.1 Figure 7.10.1 covering miscellaneous offences follows the pattern of other offence types: a fall in community sentences compensated in part by an increase in suspended sentences. Custodial sentences have also fallen but the trend is starting to reverse from 2015.



Figure 7.10.1. Males: Sentencing flows for Miscellaneous Offences 2006 -2016

# 7.11 Fraud offences

#### **Top Points**

7.11.1 The picture for Fraud suggests that while the overall level handled within the three sanction categories has ranged between 5500 - 7500 cases per year, by 2016 they are divided equally among custody, SSO and community sentences. The decline between 2010 and 2016 has been in the use of community sentences. Fraud, internet or cyber-crime are known to be significantly under-reported and so no inferences can safely be made about the broader impact of this type of offence.



Figure 7.11.1. Males: Sentencing flows for Fraud Offences 2006 - 2016

# 7.12 Summary (non-motoring) offences 2006

#### **Top Points**

7.12.1 Figure 7.12.1 suggests that the more 'serious end' of summary offences has remained broadly the same - if anything a gentle increase - while community sentences declined substantially, down to 35,000 per year from a high of 55,000.



Figure 7.12.1. Males: Sentencing flows, Summary (non motoring) Offences 2006 - 2016

(#) The total is for the three outcomes only

# 7.13 Summary motoring offences 2006

#### **Top Points**

7.12.1 From figure 7.12.1, there has been a substantial decline in all three sanction outcomes for summary motoring offences with reductions of 30 - 40% of their 2006 levels. However there is a change in trend from 2014 with a small rise since then.



Figure 7.13.1. Males: Sentencing flows for Summary Motoring Offences 2006 - 2016

# 7.14 Shifts among sentence outcomes

7.4.1 This section seeks to understand whether suspended sentence orders (SSOs) have displaced, or were a substitute for, custody or community sentences

#### **Overview**

7.4.2. The statistics published by the MoJ do not directly shed light on the question whether the introduction of suspended sentences in 2005 had helped divert suitable cases from custody or may have also been used as a replacement for community sentences. Nevertheless we can look at the sentencing volumes of various outcome categories and perhaps, indirectly, draw some conclusions about the scale of such an effect, if any.

7.4.3. In order to do this, however, it is necessary to make some assumptions about the factors that shape sentencing and their influence on sentencing decisions. The 2003 Criminal Justice Act set out a number of purposes for sentencing i.e.

"Any court dealing with an offender in respect of his offence must have regard to the following purposes of sentencing-

(a) the punishment of offenders,

- (b) the reduction of crime (including its reduction by deterrence),
- (c) the reform and rehabilitation of offenders,
- (d) the protection of the public, and
- (e) the making of reparation by offenders to persons affected by their offences"

7.4.4. It is arguable that the protection of the public and the reduction of crime represent considerations that will be uppermost in the mind of judges and magistrates. So the severity of the offence, that is the amount of harm caused, and the risk of re-offending can be expected to be given a major weight. While these two factors are not wholly independent, being correlated to varying degree with the nature of the offence and characteristics of the offender, they do suggest that we can consider the outcomes, custody, suspended sentence, community sentence, a fine and a discharge, as forming a spectrum that reflects the seriousness of the offence. (There is the "Other" category that deals with offences *sui generis* including cases such as mental health transfers etc.. However, as we shall see this drops out as the rate for "Other" cases is broadly constant over the analysis period)

7.4.5. Looked at in this way, for example, short custody or community sentences are plausible alternatives to suspended sentences; fines are plausible alternatives to community sentences, and so on. Also a fine or a discharge would *not* be alternatives for suspended sentences or custody, as they are at the tail end of this spectrum.

7.4.6. The idea, therefore, is to see, taking the above as a very plausible hypothesis, what the changes in the sentencing rates of these categories suggest about any displacement effects that may have been caused by the introduction of suspended sentences. We need to consider a 'full set' of outcomes so that we can see all plausible explanations about the direction of shifts.

7.4.7. Figures 7.4.1 to 7.4.4 depict the annual rates, as volumes and as a percentage, of the number convicted from 1995 to 2016. The data supports the six outcomes in paragraph 7.4.4

7.4.4. The absolute number of all convictions over the period ranged between 1.3m to 1.25m with a peak 1.55m in 2004 - see figure 7.4.1.

7.4.8. Figures 7.4.3 and 7.4.4 normalise the comparison by looking at the proportional composition of the six outcomes. Looking at the proportions removes variation due to volume changes. We consider two periods: 2003 to 2011; and, 2011 to 2016.

7.4.9. In the period 2003 - 2011:

(a) Community sentences have remained broadly static at around 14% of convictions

(b) Custodial sentences varied, 8% in 2002 , 6.5% in 2005 - 2007 and then back up to  $\sim$ 8% in 2011. The fall started before the introduction of the SSOs.

(c) Suspended sentences, following their introduction rapidly increased to 3.6% by 2011.

(d) Fines fell from  $\sim$ 70% to 65% over this period

(e) The Other category remained broadly in the range 2±0.5 % over the period

(f) The discharged category remained broadly constant over the period at  $\sim$ 7.2%

<u>Outcome</u>	~ % Change
Custody	(0, ~1.5) over the interval
SSO	+3.6
Community	0
Fine	-5
Discharged	0
Other	0

Summary Table:

7.4.10. One way to interpret these differences, thinking in terms of the spectrum described above, is that the introduction of suspended sentences had caused a ripple effect pulling in cases from both custodial and community sentences. Community sentences in turn pulled cases from its next adjacent category, i.e. fines, whose volume fell (as already noted we are looking at changes in proportions so shifts among outcome categories). Having said that, it is also likely that at least some of these possible shifts may have been due to other factors such as the changing mix of offences with, for example, some types such as theft falling.

7.4.11. In the period 2011 to 2016:

(a) Community sentences have fallen rapidly from 14% of convictions down to 8.2% - a difference of 5.8%

(b) Custodial sentences declined by  $\sim 1\%$ , from 8.2% of convictions down to 7.2%

(c) Suspended sentences, increased by  $\sim 1\%$  from 3.6% of conviction up to 4.6%

(d) Fines increased from 65% to 74% over this period, up 9%

(e) The Other category remained broadly in the range 2±0.5 % over the period

(f) The discharged category down from  $\sim$ 7.2% to around  $\sim$ 5%

<u>Outcome</u>	~% Change
Custody	-1.0
SSO	+1.0
Community	- 5.8
Fine	+9
Discharged	-2.2
Other	0

Summary Table:

7.4.12. In this period the "transmission" effect described in paragraph 7.4.10 appears to have been contained in two groups: custody and suspended sentences; community and fines. In this period it looks as if suspended sentences replaced some immediate custody cases; and some community sentences changed into fines<sup>23</sup>. This would be in keeping with the more general notion that in recent years the police and criminal justice focus more generally has been on more serious cases. So, while the overall volumes of cases coming forward fell, the number of cases calling for the more severe sanctions of custody and suspended sentences has remained steady.

#### **Top Points**

7.4.13. Overall the data (with its limitations) is suggestive that from 2003 to 2011 suspended sentences (in aggregate terms) will have pulled in cases from both custodial and community sentences. However in the period 2011 to 2016 the results are more closely associated with changes to custodial sentencing (short sentences) and this is more in keeping with the notion that SSOs are only awarded in cases where the custody threshold has been met. A changing mix of offences and the pressures on a prison system make it more likely that SSOs are used as an alternative to custody.

<sup>&</sup>lt;sup>23</sup> Some discharged outcome cases may have also converted into fines. It is tempting to see the reduction in community sentences and discharged categories "adding up" to the increase in fines.



**7.14.2 Conviction & Sanction rates: 1995 to 2016** Scale focused on Custody, SSOs and Community sentences





#### 

# 8. Repeat offenders and their impact on the prison population

# 8.1 Male sentencing flow by sanction outcomes for first time offenders

## 8.1.1 First time offenders- all offence types

# **Top Points**

8.1.1 Figures 8.1.1 and 8.1.1 (bis) show a very sharp decline in the use of cautions and fines for first time offenders. This is in keeping with the notion that the police are focussing on more serious offences and that first offences, which prior to 2007 would have attracted a caution or a fine, are being dealt with informally or against the background of reducing budgets, may not be given priority.

8.1.2 These two figures also show that the reduction in community sentences and a more modest reduction in the use of prison are compensated by an *increase* in the use of suspended sentences<sup>24</sup>.

8.1.3. Nevertheless it is clear that whatever 'premium' there might be expected from a general reduction in the number of offences entering the system (for example from the results of crime surveys) this has not impacted on the rate of entry of first time offenders to prison - that is to say those offences that are sufficiently serious to call for prison notwithstanding any general presumption that the lightest sentence possible should be used for first time offenders.

<sup>&</sup>lt;sup>24</sup> The issue of shifts in sentencing was considered in aggregate terms in section 7.14.



Figure 8.1.1 Sanction outcomes, Males, all offence types, Nil precons 2006 -2016



# 8.1.2 First time offenders (bis) - excluding cautions

# 8.2 Female sentencing flow by sanction outcomes for first time offenders

# 8.2.1 First time offenders - All offence types

8.2.1 Figures 8.2.1 and 8.2.1 (bis), show that for female first time offenders, there is a similar pattern to that for male offenders, viz. the very sharp decline in the use of cautions and fines. Again this suggests that the police are focussing on more serious offences and that first time offenders, who prior to 2007 would have received a caution or a fine, are being dealt with informally or, against the background of reducing budgets, are not being given priority.

8.2.2 These two figures again show that the reduction in community sentences and a reduction in the use of prison are compensated by an *increase* in the use of suspended sentences - in fact for female offenders, suspended sentences, by 2016, are double the rate of custody. While it is possible of course that some of this may be due to community sentences being "up tariffed" (even though that is not what the "rules" require, see 7.0.1), it is also suggestive that the courts mindful of the pressures on prison places are using suspended sentences as a diversion away from custody.



Figure 8.2.1 Sanction outcomes, Females, all offence types, Nil Precons 2006 -2016



# 8.2.2 First time offenders bis - excluding cautions

# 8.3 Sentencing flows for *repeat* male offenders, for custodial, suspended and community sentences

8.3.1 This analysis looks at the composition of the annual sentencing flow for Community, suspended and custodial sentences from the perspective of the criminal history of offenders. The analysis uses the following categories (see 4.3)

- + 01 First time offenders
- + 02 1-2 previous convictions/cautions
- + 03 3-6 previous convictions/cautions
- + 04 7-10 previous convictions/cautions
- + 05 11-14 previous convictions/cautions
- + 06 15+ previous convictions/cautions

We can establish therefore how the mix differs across these related sentencing outcomes, and across the period 2006 - 2016. Figures 8.3.1, 8.3.2 and 8.3.3 cover community, suspended and custody sentences respectively.

# **8.3.1 Community sentence**

#### **Top Points**

8.3.2 From figure 8.3.1 it can be seen that the flow into community sentences is initially, 2002, dominated by those with a 'moderate' criminal history i.e. 1 - 6 previous offences. However this falls over time so that, by 2016, it is more in line with the other criminal history groups. This is in accord with the general pattern of falling numbers receiving community sentences as illustrated in figure 7.0.1, and suggests that most of this change takes place in the 1-6 previous offences group.



Figure 8.3.1 Sanction Community Sentence; Males, all offence types, 2006 -2016

# 8.3.2 Suspended Sentence

# **Top Points**

8.3.3 The picture given by figure 8.3.2 shows that suspended sentences are more heavily weighted by those with longer criminal histories. All categories show a pattern of gradual growth, including first time offenders. Again this is in accord with the general pattern of growth in the number receiving suspended sentences as illustrated in figure 7.0.1.



Figure 8.3.2 Sanction Suspendend Sentence; Males, all offence types, 2006 -2016

# 8.3.3 Custody

#### **Top Points**

8.3.4 The picture given by figure 8.3.3 shows that custodial sentences are very heavily weighted by those with longer criminal histories. In particular those with 15+ previous convictions are a comparatively large category. Even though, in histogram terms, the 15+ category represents the largest interval (and therefore the sum of all those with sentences with 15 or more convictions) it is nevertheless striking that they represent around 40% (of the ~100,000 given immediate custodial sentences each year - see Figure 7.0.1)



Figure 8.3.3 Sanction Custody; Males, all offence types, 2006 -2016

# 8.3.4 Cautions

## **Top Point**

8.3.4 It is also interesting to compare use of cautions in repeat offending cases. Figure 8.3.4 shows the distribution of cautions by the number of previous offences. Cautions are overwhelmingly used for first time offenders.



Figure 8.3.4 Cautions, males, all offence types, comparison 2006 -2016

# 9. Simulating the impact of alternatives policies to those in the Criminal Justice Act 2003

9.0.1 Section 2 presented the headline changes in the legal and financial environment within which the criminal justice system operates. The Criminal Justice Act 2003 introduced a range of changes to the operation of the criminal justice system, including provisions for dangerous offenders such as the indeterminate sentences for public protection (IPP) and extended public protection determinate sentences. It also included suspended sentence orders (SSO) for offenders who would otherwise be sent to prison but where the court judged supervision in the community with rehabilitation requirements was a more appropriate response in the circumstances of the offence. It also presaged a climate of longer prison sentences for indictable offences - see section 6 where the changes to average prison sentences are analysed.

9.0.2 This analysis is about assessing the impact of the Criminal Justice Act 2003 on the prison population. The analysis uses a simulation engine<sup>25</sup> to generate a number of scenarios where specific aspects of the Criminal Justice Act 2003 are selectively removed, so as to assess their relative contribution to the size of the prison population, over the period 2003 to 2017, by comparing against the historical trajectory of custody numbers, or, where appropriate, the probation caseload.

# 9.1 The Model Simulation Engine - brief background

9.1.1. Earlier in this report we explored a number of factors that are used to measure the characteristics of custodial sentences and the resulting prison population. The simulation to model the criminal justice dynamics relies on bringing together a large number of such factors including the size and age make-up of the general population from which offenders are drawn, and the range of criminal justice and other agencies whose work or output involves tackling crime.

9.1.2. The model does this by establishing an in-silico virtual population of people with gender, age and offending risk profiles aimed at imitating the real population. Within this virtual environment, it is possible to identify those who have committed offences (as generated by the algorithms of the simulation) and to track what happens over time. A set of parameter controlled relationships is used to describe the response of the justice system in identifying, detecting, convicting, sentencing offenders as well as their rehabilitation or desistance. Among the results of the simulation are estimates of the prison population, the number supervised in the community and many other outcomes reflecting the operation of the system.

9.1.2. The model necessarily incorporates many simplifications. In particular it does not (at this time) differentiate between offence types. However, crucially, it incorporates many other key variables and relationships, ones that capture the essence of the behaviour and

<sup>&</sup>lt;sup>25</sup> See: www.justice-episteme.com

dynamics of the various systems involved, as well as the sentencing outcomes described in section 4, and the ability to define different sentencing behaviour in terms of custody lengths. This means that the model is a powerful tool that can be used to explore and analyse the potential impact of policy or practice reforms. Such an analysis can be done retrospectively - e.g. what if some of the sentencing changes introduced by the Criminal Justice Act 2003 were not introduced? Or prospectively - e.g. given where we are now, what would be the likely impact of reducing the use of short prison sentences from, say, 2018? It should however be noted that the scope and accuracy of the simulation engine continue to be developed and tested. The results may be refined as the algorithms are periodically reviewed for improvement.

9.1.3 The results presented in this section are based on the 2018.1 version of the simulation engine. This incorporates indictable and summary offences and covers male and female offenders. However, for a variety of practical and evidence related reasons it does not incorporate motoring offences. This does not materially affect a study of the prison population since comparatively few driving related offences result in prison sentences - see Figure 7.13.1 - which owing to their short length, typically 2 or 3 months, account for a very small ( $\sim$ 1%) fraction of those in prison.

9.1.4 As well as the top line aggregated figures for the custodial population, the simulation is able to provide the occupancy trajectory for various components such as male or female, short, medium or long sentences, indeterminate sentences and remand. It is possible therefore to assess which components had the most impact in relation to the changes being considered.

# 9.2 The reference scenario

9.2.1. A reference scenario provides a baseline for comparison of the results, looking at the potential impact of changes to policy or practice, such as sentence lengths or time served in custody. Since we are looking at how the Criminal Justice Act 2003 has affected the prison population, the historical trajectory of custody numbers forms the reference scenario. This is a simulation of the system as is, validated by comparing that with published custody figures. This will help assure that the simulation is reproducing the historical trajectory to an acceptable level of accuracy - typically differences  $\pm$  5% or less<sup>26</sup>.

9.2.2 It should also be noted that the reference scenario incorporates other subsequent sentencing or process changes such as those introduced by the Criminal Justice Acts 2008/2012 which modified and then abolished IPPs and made certain other changes to extended determinate sentences. A further consideration is the Criminal Justice Act 2014 which introduced supervision of those released from short (less than 12-month) sentences, with a taper arrangement for sentences of up to two years. The impact is that extending

<sup>&</sup>lt;sup>26</sup> Calibration of the model is non-trivial. The existence of feedbacks and the need to replicate the flows and stocks across the range of outcomes means the process has to be interative. Nevertheless a high level of fidelity is achieved. See also figures 9.4.3.1 and 9.4.3.3

supervision to all short sentences will add to the prison population those recalled under the extended arrangements for breaches of their licence conditions.

# 9.3 Sentencing change scenarios

9.3.1 The analysis explores the following changes, individually and, in some cases, in combination

A. The reference scenario - no change as described in paragraph 9.2.1

B. The IPP sentence and related changes are not introduced

C. The distribution of prison sentence lengths extant in 2003 continues to 2017. This means that the sentence length 'inflation' seen over the past 15 years does not take place.

D. Scenario (B) and scenario (C) together

E. Suspended sentences are not introduced

F. Consider the impact of Scenario C on the number recalled to prison.

# 9.4 Simulation results

## **Summary of Top Points**

9.4.1 It is estimated that if the sentencing changes in the Criminal Justice Act 2003 relating to serious offences were not implemented, the male prison population in 2017 would be very substantially less (figures 9.4.1a and 9.4.1b)<sup>27</sup>:

1. Not introducing IPP sentences would have reduced the prison population by about 4,000 places, relative the reference scenario/historical trajectory

2. Keeping custody lengths to 2003 levels has a much bigger impact; by 2017 this would have been 12,500 lower than current male prisoner population levels

3. Combining these two changes (they are not additive due to re-offending and other types of feedback in the system) gives a projected male population of around 65,000 - 67,500 from 2017

 $<sup>^{27}</sup>$  For clarity the 95% confidence intervals are omitted. These vary somewhat over time and depending on the size of the outcome being simulated. For the male prison population a range of  $\pm$  1400 relative to the plotted values would be typical.

4. The number of female prisoners is not significantly impacted by changes to IPP or sentence lengths

#### On the other hand

5. Without the suspended sentence provisions of the Criminal Justice Act 2003, the prison population would have been  $\sim$ 10,000 \_higher\_ for males and 3,000 for females<sup>28</sup>, than current levels (figures 9.4.3.2 and 9.4.3.4). This scenario assumes that both IPP and sentence length inflation are still in place.

# 9.4.1 Scenarios A, B & C

#### (a) Male Offenders

#### **Top Points**

9.4.1.1 The IPP sentences are abolished. However, those who were given an IPP sentence would instead have received a determinate sentence (equivalent to the tariff). So this also impacts on short, medium and long sentences from which those offenders given an IPP would have been drawn. At one level this is of course relabeling, but the key point is that they are fixed length and prisoners are generally released midway through their sentence.

9.4.1.2 The average length of determinate sentences which in 2005 was 16 months compared to 20 months in 2015. Applying a 2003 rate in subsequent years will reduce the number in prison on fixed length sentences. This makes the biggest difference.

 $<sup>^{28}</sup>$  95% confidence intervals for female population estimates would typically be ±500.



Figure 9.4.1a. Males: impact of IPP and custody length inflation for serious offences

#### (b). Female offenders

#### **Top Points**

9.4.1.3 While the analysis of the distributions of prison sentence lengths for women shows that sentences for some offence types have gotten longer (see section 6 and Annex A.2), the volumes of such sentences (e.g. robbery, sexual offences) for female offenders are low to very low. This means that the changes in the scenarios considered here do not materially affect the size of the female prison population. The number of female offenders sent to, or held in, prison for sexual or robbery offences is very low - see section 5.6.



Figure 9.4.1b. Female: impact of IPP and custody length inflation for serious offences

#### (c) Prison population components (Male + Female)

9.4.1.4 In this section the results of the simulation analysis of the various prison population components are presented.

9.4.1.5 In terms of the make-up of the current prison population the analysis considers population projections<sup>29</sup>, alongside custody statistics published by the MoJ in 2017. Based on a somewhat simplified categorisation scheme of the custody length data model in section 4, it covers:

- \* Long determinate sentences (4+ years)
- \* Medium determinate sentences, between 12 months to less than 4 years
- \* Short determinate sentences, less than 12 months
- \* Indeterminate sentences: life and the IPP sentence
- \* Remand

<sup>&</sup>lt;sup>29</sup> It should be noted that for smaller groups that uncertainty in the simulation results will be larger. More accurate results could be obtained if the size of the virtual population was very large, say, 5 million or more. However this strain currently available hardware.

#### Composition of the prison population by sentence length or remand

#### Long Custody Group

9.4.1.6 Figure 9.4.1a shows the number of those in prison serving long (4+ year) determinate sentences, corresponding to the three scenarios being investigated. Scenario B i.e. "NoIPP" shows an increase (~3000) relative to the projection for long sentences under the reference scenario A. This is a reflection of the fact that some<sup>30</sup> cases that previously would have been imposed indeterminate IPP sentences would, under scenario B, be given determinate sentences instead. As might be expected under scenario C, where the 2003 distribution of custodial lengths is retained, shows a substantial reduction on the number in custody serving long sentences.



<sup>&</sup>lt;sup>30</sup> Those given IPP sentences would have come from short, medium and long sentences. The increase here would be due to long sentences only.

#### Medium Custody Group

9.4.1.7 Figure 9.4.1b compares the three scenarios for medium length sentences (12 months to less than 4 years). The differences are within the confidence intervals of the simulation and so not significant.



#### Short Custody Group

9.4.1.8 The number in prison on short custodial sentences is not impacted in a significant way by the changes in in scenarios B and C. Although the volume is high for these short sentences, the throughput is also rapid so policy changes do not leave a residual imprint of any differences on the short sentence population level.





#### Indeterminate Sentences

9.4.1.9 As would be expected, the absence of IPP sentences in scenario B removes that component (the hump in the curve) of the indeterminate sentence population, leaving only those on life sentences. The simulation also shows the trajectory of the reducing number of those with an IPP sentence following the abolition of that sentence from 2013. Release to the community under licence is decided by the Parole Board on the basis of risk and the projection suggests that the number of those being held on an IPP sentence will take a further 10 - 15 years or so to reduce to a level near zero.<sup>31</sup>



Figure 9.4.1d. Indeterminate sentences - Scenarios A, B & C

<sup>&</sup>lt;sup>31</sup> The release of those on IPP sentences is proving in some cases to be controversial and this will add to the caution attached to these decisions.

#### **Remand Population**

# 9.4.1.10 The remand prison population shows little difference across the three scenarios



Figure 9.4.1e. Remand - Scenarios A, B, C

# 9.4.2 Scenario D - B+C together

#### (a) Male Offenders

9.4.2.1 Figure 9.4.2.1 shows the estimated combined effect of "NoIPP" and 2003 custody length scenarios (B+C). The results show the delays that operate in the prison system particularly that some changes take time to work their way through. Also, it should be underlined that changes are not generally additive or linear - often resulting in the displacement of offenders from one category to another. There are many feedback loops operating, so a straightforward prediction is not possible.

9.4.2.2 Combing scenarios B and C essentially means that the pre Criminal Justice Act 2003 sentencing environment continues to apply throughout the last 15 years. The combined effect means that the projected male prison population, by 2017 would have been in the range  $65,000 - 67,500^{32}$ 



Figure 9.4.2.1 Males: impact of IPP + custody length inflation for serious offences

 $<sup>^{32}</sup>$  For clarity the 95% confidence intervals are omitted. They vary somewhat over time but a range of ± 1400 relative to the plotted values would be typical for estimates of the male prison population.
#### (c) Female offenders

9.4.2.3 Figure 9.4.2.2 shows the simulated impact of scenarios B+ C for women offenders. As might be expected from the analysis given in section 6.2 any differences between the scenarios would not be statistically significant.





#### 9.4.3 Scenario E - Impact of suspended sentence provision

9.4.3.1 Section 7 described the requirements for a court to impose a suspended sentence. To recap, if a case meets the custody threshold, and the sentence to be imposed is between 14 days and two years (or six months in the magistrates' court), the court may choose to suspend the sentence for up to two years, to be served in the community. If an offender does not comply with the requirements or commits a further offence during the suspension period, he or she is will likely be required to serve the original custodial term in addition to the sentence they get for any new offence.

9.4.3.2 This means that in any scenario where we consider that SSOs are not available, the SSO sentencing stream (or at least most of it) would need to go into immediate custody. This is on the premise that that is a requirement for the SSO in the first place, and notwithstanding any up-tariffing from a community sentence option that may have occurred simply because a suspended sentence was an option.

9.4.3.3 In section 7 we saw that the trend for most offence types was for the number of suspended sentences to grow over time, sometimes along with an increase in the number of those sent to custody. While there has been a general fall in the number being given community sentences, there is no straightforward correlation between that and the growth of suspended sentence numbers. In section 7.14 we looked at the interplay between a numbers of outcomes, in particular how suspended sentences may have substituted for cases that might otherwise been destined for custody or a community sentence. That analysis suggested that after 2011 SSOs were being used as alternatives to custody, rather than as replacements for community sentences.

9.4.3.4 The scenario being explored here is that the entire SSO sentencing stream effectively becomes "immediate custody". This is perhaps a worst case assumption<sup>33</sup>, but it is in keeping with the SSO "rules". It is also necessary to make some assumptions about the proportion that falls into 12 - 24 months sentence category. This is taken to be 5% on the grounds that it is far more likely that a court would choose the SSO option for less serious cases. There is no data that can help guide this choice but it would seem to be plausible. A more sophisticated way of looking at all this would need the simulation engine to be upgraded to include offence types (which is part of the development road-map).

<sup>&</sup>lt;sup>33</sup> Particularly for the period 2005-2011, where the growth of SSOs is likely to have 'pulled in' cases from both custodial and community sentences - see section 7.14. In other respects it is also assumed that the distribution of sentence lengths is the same as for other cases receiving short custodial sentences of less than 12 months.

#### **Top Points**

9.4.3.5 Figures 9.4.3.1 to 9.4.3.5 show the results of the simulations comparing Scenario E against Scenario A (the reference). They also show projected numbers for community sentences, post-release licence and suspended sentences, along with the projected prison population. They cover the cases for both male and female offenders. Keeping all other factors constant, the following general points can be drawn out:

- 1. if suspended sentences were not an option the prison population would have been  $\sim$ 10,000 higher for males and  $\sim$ 3,000 for females.
- 2. the impact on the female population would have been proportionately higher, and this is in keeping with the observations in section 7, figure 7.0.2.where by 2016 the number receiving suspended sentences is roughly the same as those going to prison
- 3. the number of those on post-release supervision grows by roughly the number who would otherwise have been supervised on community sentences.
- the overall effect, therefore, would have been to increase the prison population by ~13,000 while still needing to keep the resources in place to supervise the same individuals under post-licence supervision.

#### (a) Male offenders

#### Scenario A - male offenders

9.4.3.6 The reference scenario, A, shows the number of those in prison, post-release licence, community and suspended sentences. This is needed to capture the shifts in cases among these various outcomes depending on the availability or not of suspended sentences. It also helps to show that the simulation generates a faithful representation of the observations of the various stock values (at least at this level of aggregation) in published statistics.



Figure 9.4.3.1. Male Offenders, prison, licence, CS and SSO levels

#### Scenario E – No suspended sentences, male offenders

9.4.3.7 Figure 9.4.3.2 shows the number of those in prison, post-release licence, and community and sentences in the case where suspended sentences are not available i.e. scenario E. For comparison it also shows the results from scenario A – no change. While this chart is somewhat crowded, it contains the necessary information to show the shifts in the various sentences, as a consequence of removing the SSO option:

- There is no change to community sentences. This is to be expected since scenario E diverts cases that would have been destined for SSO to immediate custody
- The prison population increases from mid-2005 relative to the historical trajectory. At its widest point, from around 2016, this is <u>an increase of about 10,000</u> - the difference between lines "Custody E" and "Custody A"
- The number of offenders on post-release licence also shows an increase. However the major impact of this is delayed until the provisions of the Offender Rehabilitation Act, 2014, for "Through the Gate" supervision apply. Since almost all SSO cases would be destined for short custodial sentences, the effect is to transfer all cases that would previously have been supervised as SSOs to be supervised as offenders on post-release licence see "Licence E" line in figure 9.4.3.2 which is approximately "Licence A" plus "SSO A" (It will not be exactly the same owing to various delays in the system including differing supervision requirements for those on SSOs and post-release licences).



 There is, of course, no SSO stock – see "SSO – E" line in figure 9.4.3.2 Figure 9.4.3.2. Male offenders, comparison scenarios A and E

#### (b) Female offenders

#### Scenario A - female offenders

9.4.3.8 Figure 9.4.3.3 shows the results for reference scenario, A, i.e. the numbers of those in prison, post-release licence, community and suspended sentences. This is needed to capture the shifts in cases among these various outcomes depending on the availability or not of suspended sentences. Again it demonstrates that the simulation generates a faithful representation of the observations of the various stock values in published statistics for the female population in prison or under supervision in the community.



Figure 9.4.3.3. Female offenders, prison, licence, CS and SSO levels

#### Scenario E – No suspended sentences, female offenders

9.4.3.9 Figure 9.4.3.4 shows, for female offenders, the number of those in prison, postrelease licence, and community and sentences in the case where suspended sentences are not available i.e. scenario E. For comparison it also shows the results from scenario A – no change. While this chart is somewhat crowded, it contains the necessary information to show the shifts in the various sentence categories or stages, as a consequence of removing the SSO option:

- There is no change to community sentences. This is to be expected since scenario E diverts cases that would have been destined for SSO to immediate custody
- The prison population increases, from mid-2005 relative to the historical trajectory, by about 3,000 the difference between lines "Custody E" and "Custody A"
- The number of offenders on post-release licence also shows an increase. However the major impact of this is delayed until the provisions of the Offender Rehabilitation Act, 2014, for "Through the Gate" supervision apply. Since almost all SSO cases would be destined for short custodial sentences, the effect is to transfer all cases that would previously have been supervised as SSOs to be supervised as offenders on post-release licence see "Licence E" line in figure 9.4.3.4 which is approximately "Licence A" plus "SSO A" (It will not be exactly the same owing to various delays in the system including differing supervision requirements for those on SSOs and post-release licences).





Figure 9.4.3.4. Female offenders, comparison of scenarios A and E

#### 9.4.4 Scenario F - Change in recalls

9.4.4.1 In section 5.10 we saw that recalls represented a substantial proportion of those in prison custody. This section uses simulation (e.g. comparing the reference scenario (A) against (C) with 2003 custody lengths) to help establish how longer custodial sentences are impacting on recalls.

#### **Top Points**

9.4.4.2 The effect of sentence length is also being felt through an increase in the number of recalls. This is because offenders will stay in the probation system longer and so add to the chance of a failure to comply with licence requirements being counted as a recall. Other jumps represent changes in policy such suspended sentences and "Through The Gate supervision" which has provided for supervision of all short (<12 months) sentences.

9.4.4.3 The projection of Scenario A (current policies continuing) suggests that the number of recalls will continue to grow potentially reaching a maximum of around 8,500.



Figure 9.4.3. Number of offenders in prison following recall

#### ANNEX A

# Cumulative Distribution Functions of custodial sentence lengths by offence type

#### CONTENTS

A.1 CDF ANALYSIS, MALE OFFENDERS, ALL AGES

A.2 CDF ANALYSIS, FEMALE OFFENDERS, ALL AGES

A.3 CDF ANALYSIS, MALE JUVENILE OFFENDERS (15-17)

A.4 CDF ANALYSIS, MALE YOUNG ADULTS OFFENDERS (18-20)

A.1. More information about the changing pattern of sentencing can be obtained by looking at the full distribution of custodial lengths. This is needed because for each offence type there will be a range of custodial lengths representing the sentences given by the courts in the light of the seriousness of each case. The analysis below compares the custodial lengths using a **Cumulative Distribution Function (CDF)** to describe the variation of sentence lengths within each offence type. This is derived from the data published by the MoJ<sup>34</sup>. The graphs and tables show the fraction of sentences that are less than a given length. This 'overview' of sentencing shifts makes it easier to compare different offence types or the same offence type for different years. In particular we can look for changes

\* in the shape of the curve which will show, within each offence type, how custodial lengths have varied

\* to the position of the curve - the further to right the longer the sentences it represents

\* in the contribution an offence type makes relative to the average CDF across all types

A.2 Such an analysis can provide a quantitative picture of how sentencing practice has changed over the past decade.

<sup>&</sup>lt;sup>34</sup> See quarterly statistics for December 2016, published in May 2017, https://www.gov.uk/government/statistics/criminal-justice-statistics-quarterly-december-2016

A.3 To illustrate, the following graphs show, for each **offence type**, the proportion of offences given against length of sentence in months. The graphs compare the years 2006 and 2016 (although the tables include all years) and also show the average CDF across all offence types for each of these two years. One can also, therefore, see the contribution or location of each offence type relative to the average for that year.

#### **Summary of results**

A.4 The graphs convey the detailed picture. However at a level of overview the following groups are suggested:

Group 1 - high levels of change {Sexual offences, Robbery, Criminal damage and arson, Fraud offences}

Group 2 - medium levels of change {Public order offences, Miscellaneous crimes against society}

Group 3 - low levels of change {Violence, Theft, Drugs offences, Possession of weapon, Summary offences (non) motoring}

It should however be noted that the parts of the graphs that cover long sentences (viz. 4+ years) are relatively flat and so small changes in the proportion in the 9th decile can mean large differences in sentence length, and so contributing to the larger fraction of long sentence prisoners in custody.

A.1 CDF ANALYSIS, MALE OFFENDERS ALL AGES

## Violence against the person



Figure CDF.1 Males: Violence & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Offence Violence**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.077	0.072	0.064	0.072	0.086	0.103	0.125	0.133	0.148	0.165	0.192
5	0.191	0.179	0.169	0.179	0.192	0.211	0.227	0.238	0.263	0.276	0.310
6	0.269	0.252	0.244	0.244	0.252	0.268	0.287	0.297	0.324	0.335	0.378
9	0.356	0.336	0.333	0.344	0.355	0.369	0.375	0.378	0.402	0.413	0.440
11	0.376	0.359	0.361	0.374	0.388	0.401	0.410	0.414	0.431	0.449	0.472
12	0.480	0.473	0.465	0.482	0.492	0.499	0.487	0.491	0.508	0.522	0.535
18	0.627	0.617	0.608	0.629	0.640	0.634	0.625	0.622	0.634	0.648	0.653
24	0.722	0.720	0.704	0.723	0.728	0.728	0.719	0.711	0.728	0.742	0.744
36	0.811	0.815	0.791	0.816	0.811	0.809	0.799	0.792	0.806	0.824	0.824
47	0.839	0.840	0.820	0.841	0.838	0.832	0.821	0.813	0.827	0.846	0.843
48	0.868	0.873	0.855	0.871	0.868	0.861	0.847	0.838	0.845	0.865	0.860
60	0.901	0.905	0.891	0.902	0.902	0.895	0.877	0.866	0.872	0.887	0.884
84	0.931	0.931	0.924	0.936	0.937	0.932	0.919	0.910	0.909	0.921	0.919
120	0.948	0.948	0.946	0.955	0.958	0.958	0.949	0.946	0.944	0.951	0.950
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Sexual offences**



Figure CDF.2 Males: Sexual Offences & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Sexual Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.040	0.029	0.034	0.039	0.034	0.036	0.042	0.041	0.033	0.031	0.028
5	0.070	0.064	0.063	0.065	0.061	0.063	0.066	0.068	0.061	0.069	0.066
6	0.112	0.093	0.092	0.087	0.087	0.080	0.092	0.091	0.083	0.093	0.097
9	0.150	0.129	0.134	0.122	0.118	0.109	0.120	0.119	0.116	0.117	0.123
11	0.159	0.139	0.144	0.127	0.131	0.117	0.129	0.131	0.127	0.127	0.134
12	0.230	0.214	0.212	0.190	0.201	0.178	0.182	0.176	0.166	0.162	0.176
18	0.330	0.319	0.321	0.292	0.301	0.270	0.281	0.267	0.235	0.229	0.241
24	0.426	0.419	0.422	0.389	0.395	0.371	0.371	0.358	0.319	0.302	0.324
36	0.565	0.549	0.556	0.521	0.531	0.497	0.498	0.477	0.435	0.430	0.445
47	0.612	0.603	0.595	0.564	0.581	0.541	0.547	0.520	0.482	0.476	0.483
48	0.678	0.668	0.667	0.639	0.653	0.614	0.612	0.581	0.557	0.547	0.558
60	0.760	0.753	0.748	0.731	0.726	0.695	0.689	0.660	0.633	0.631	0.640
84	0.854	0.844	0.843	0.822	0.822	0.798	0.790	0.750	0.742	0.748	0.754
120	0.937	0.936	0.929	0.917	0.920	0.898	0.897	0.866	0.860	0.864	0.870
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Robbery



Figure CDF.3 Males: Robbery & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

## **Table Robbery Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.002	0.003	0.002	0.001	0.003	0.002	0.001	0.001	0.001	0.002	0.001
5	0.031	0.030	0.029	0.023	0.022	0.020	0.014	0.017	0.015	0.010	0.008
6	0.070	0.070	0.057	0.050	0.049	0.040	0.038	0.033	0.028	0.025	0.025
9	0.106	0.115	0.100	0.091	0.086	0.085	0.075	0.065	0.058	0.051	0.049
11	0.121	0.133	0.118	0.109	0.106	0.106	0.098	0.087	0.077	0.067	0.066
12	0.201	0.224	0.205	0.191	0.186	0.186	0.166	0.154	0.138	0.119	0.102
18	0.317	0.345	0.335	0.320	0.313	0.316	0.293	0.259	0.233	0.212	0.170
24	0.454	0.486	0.470	0.451	0.447	0.450	0.445	0.390	0.357	0.333	0.292
36	0.672	0.693	0.666	0.659	0.644	0.650	0.637	0.599	0.562	0.530	0.497
47	0.744	0.757	0.730	0.737	0.722	0.718	0.714	0.683	0.654	0.626	0.609
48	0.825	0.834	0.814	0.820	0.801	0.799	0.790	0.760	0.735	0.701	0.702
60	0.898	0.899	0.894	0.890	0.883	0.868	0.863	0.840	0.818	0.790	0.803
84	0.952	0.951	0.957	0.952	0.951	0.942	0.942	0.920	0.917	0.906	0.902
120	0.980	0.985	0.987	0.988	0.987	0.986	0.984	0.979	0.978	0.973	0.965
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Theft offences**



Figure CDF.4 Males: Theft & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Theft Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.461	0.477	0.486	0.476	0.496	0.477	0.479	0.497	0.525	0.532	0.535
5	0.635	0.652	0.643	0.620	0.636	0.615	0.619	0.637	0.648	0.650	0.656
6	0.695	0.705	0.697	0.663	0.678	0.656	0.665	0.680	0.686	0.690	0.699
9	0.734	0.744	0.737	0.708	0.720	0.704	0.707	0.720	0.724	0.724	0.729
11	0.743	0.753	0.748	0.721	0.732	0.719	0.723	0.734	0.736	0.738	0.743
12	0.792	0.801	0.794	0.772	0.781	0.768	0.767	0.771	0.771	0.773	0.773
18	0.856	0.860	0.852	0.840	0.842	0.838	0.832	0.828	0.824	0.824	0.822
24	0.898	0.903	0.894	0.882	0.884	0.882	0.874	0.867	0.865	0.861	0.862
36	0.963	0.965	0.961	0.953	0.956	0.953	0.952	0.950	0.947	0.943	0.943
47	0.974	0.976	0.972	0.968	0.969	0.968	0.968	0.968	0.966	0.962	0.962
48	0.985	0.986	0.984	0.981	0.982	0.981	0.980	0.980	0.978	0.974	0.974
60	0.993	0.993	0.992	0.992	0.991	0.990	0.989	0.989	0.987	0.985	0.985
84	0.997	0.997	0.998	0.997	0.996	0.997	0.996	0.995	0.995	0.994	0.994
120	1.000	1.000	1.000	1.000	0.999	1.000	0.999	0.999	0.999	0.998	0.999
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



## **Criminal Damage & Arson offences**

(+) Thin line is the average CDF

## **Table Criminal Damage and Arson Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.425	0.455	0.390	0.327	0.361	0.344	0.282	0.212	0.231	0.214	0.173
5	0.517	0.520	0.450	0.383	0.415	0.402	0.319	0.270	0.302	0.282	0.230
6	0.557	0.551	0.480	0.411	0.453	0.429	0.343	0.286	0.328	0.308	0.275
9	0.591	0.577	0.520	0.439	0.478	0.451	0.361	0.318	0.357	0.352	0.307
11	0.597	0.586	0.528	0.450	0.485	0.470	0.366	0.329	0.368	0.368	0.319
12	0.642	0.634	0.586	0.499	0.535	0.519	0.402	0.379	0.417	0.406	0.367
18	0.716	0.722	0.658	0.593	0.603	0.591	0.488	0.447	0.497	0.498	0.463
24	0.782	0.794	0.731	0.672	0.680	0.678	0.610	0.572	0.623	0.610	0.585
36	0.885	0.888	0.854	0.790	0.820	0.791	0.748	0.737	0.774	0.793	0.759
47	0.909	0.912	0.895	0.832	0.865	0.833	0.813	0.792	0.816	0.843	0.811
48	0.933	0.942	0.943	0.903	0.921	0.906	0.877	0.852	0.871	0.897	0.863
60	0.960	0.961	0.966	0.945	0.966	0.950	0.926	0.910	0.927	0.946	0.902
84	0.978	0.975	0.978	0.974	0.987	0.984	0.971	0.966	0.969	0.977	0.952
120	0.988	0.985	0.987	0.989	0.995	0.994	0.991	0.985	0.987	0.993	0.975
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Figure CDF.5 Males: Crim Dmg/Arson & Average - Distribution of custodial lengths

#### Drugs



Figure CDF.6 Males: Drugs vs Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

## **Table Drugs Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.121	0.131	0.131	0.123	0.135	0.133	0.124	0.121	0.125	0.112	0.106
5	0.162	0.164	0.157	0.145	0.161	0.160	0.157	0.149	0.155	0.137	0.127
6	0.193	0.196	0.186	0.170	0.186	0.193	0.191	0.178	0.183	0.164	0.152
9	0.229	0.237	0.220	0.206	0.226	0.241	0.245	0.234	0.238	0.217	0.197
11	0.237	0.249	0.229	0.215	0.238	0.254	0.263	0.252	0.256	0.236	0.216
12	0.288	0.303	0.277	0.266	0.289	0.315	0.320	0.309	0.305	0.284	0.256
18	0.377	0.406	0.375	0.376	0.401	0.428	0.431	0.401	0.380	0.357	0.317
24	0.494	0.521	0.519	0.527	0.548	0.559	0.557	0.520	0.483	0.454	0.415
36	0.680	0.707	0.702	0.714	0.726	0.730	0.748	0.728	0.706	0.683	0.672
47	0.747	0.769	0.762	0.774	0.791	0.788	0.812	0.801	0.783	0.768	0.762
48	0.811	0.830	0.819	0.833	0.843	0.837	0.859	0.843	0.826	0.814	0.811
60	0.874	0.889	0.881	0.886	0.900	0.893	0.909	0.895	0.880	0.865	0.866
84	0.945	0.950	0.949	0.950	0.957	0.954	0.963	0.950	0.944	0.936	0.942
120	0.979	0.981	0.981	0.983	0.984	0.982	0.989	0.979	0.979	0.975	0.978
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Possession of weapons



Figure CDF.7 Males: Possession Weapons & Average - Distribution of custodial lengths

(+) Thin line is the average CDF

## **Table Possession of Weapons Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.391	0.406	0.338	0.363	0.342	0.339	0.337	0.332	0.338	0.266	0.184
5	0.610	0.618	0.535	0.524	0.510	0.491	0.485	0.465	0.462	0.412	0.359
6	0.686	0.684	0.623	0.614	0.592	0.583	0.581	0.560	0.571	0.551	0.584
9	0.730	0.730	0.694	0.701	0.677	0.675	0.665	0.661	0.671	0.644	0.677
11	0.740	0.739	0.705	0.715	0.699	0.699	0.692	0.686	0.696	0.673	0.705
12	0.780	0.784	0.762	0.776	0.765	0.762	0.755	0.755	0.763	0.751	0.765
18	0.823	0.824	0.810	0.824	0.818	0.819	0.827	0.821	0.828	0.818	0.828
24	0.862	0.857	0.844	0.856	0.858	0.855	0.865	0.856	0.871	0.862	0.868
36	0.898	0.889	0.872	0.896	0.890	0.889	0.902	0.888	0.902	0.896	0.900
47	0.909	0.900	0.883	0.901	0.895	0.897	0.909	0.899	0.906	0.899	0.906
48	0.918	0.913	0.893	0.911	0.905	0.907	0.916	0.904	0.910	0.904	0.910
60	0.974	0.978	0.967	0.970	0.970	0.977	0.971	0.973	0.973	0.972	0.961
84	0.992	0.991	0.993	0.994	0.991	0.996	0.991	0.995	0.992	0.993	0.990
120	0.996	0.997	0.998	0.999	0.999	0.999	0.998	1.000	0.998	0.999	0.998
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Public Order offences**



Figure CDF.8 Males: Public Order offences & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Public Order Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.115	0.104	0.096	0.343	0.348	0.371	0.386	0.398	0.407	0.415	0.433
5	0.258	0.242	0.237	0.520	0.532	0.531	0.548	0.564	0.573	0.578	0.601
6	0.392	0.386	0.364	0.605	0.619	0.606	0.628	0.651	0.656	0.659	0.683
9	0.552	0.540	0.521	0.724	0.727	0.719	0.717	0.734	0.742	0.752	0.762
11	0.597	0.582	0.568	0.751	0.756	0.748	0.752	0.766	0.773	0.787	0.796
12	0.755	0.749	0.715	0.841	0.844	0.832	0.829	0.831	0.846	0.852	0.859
18	0.904	0.897	0.866	0.937	0.937	0.925	0.916	0.923	0.938	0.932	0.932
24	0.964	0.957	0.940	0.977	0.974	0.975	0.964	0.965	0.978	0.970	0.974
36	0.990	0.989	0.972	0.993	0.995	0.995	0.991	0.989	0.994	0.992	0.994
47	0.991	0.992	0.979	0.995	0.997	0.997	0.992	0.994	0.997	0.996	0.996
48	0.995	0.996	0.985	0.996	0.998	0.999	0.994	0.995	0.999	0.997	0.997
60	0.997	0.997	0.992	0.997	1.000	0.999	0.996	0.996	0.999	0.998	0.998
84	0.999	0.998	0.995	1.000	1.000	1.000	0.997	0.997	0.999	0.999	0.999
120	1.000	1.000	0.998	1.000	1.000	1.000	0.999	0.997	1.000	0.999	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Miscellaneous offences**



Figure CDF.9 Males: Miscellaneous offences vs Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

# **Table Miscellaneous Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.406	0.366	0.341	0.324	0.364	0.356	0.339	0.323	0.316	0.278	0.250
5	0.537	0.496	0.447	0.440	0.475	0.460	0.446	0.431	0.424	0.384	0.363
6	0.628	0.596	0.560	0.570	0.593	0.565	0.553	0.541	0.533	0.491	0.482
9	0.735	0.725	0.695	0.699	0.712	0.682	0.669	0.662	0.647	0.616	0.607
11	0.759	0.758	0.733	0.732	0.740	0.712	0.704	0.705	0.690	0.660	0.658
12	0.866	0.869	0.857	0.847	0.837	0.815	0.798	0.797	0.787	0.759	0.762
18	0.940	0.944	0.941	0.928	0.918	0.908	0.904	0.889	0.882	0.865	0.866
24	0.966	0.966	0.964	0.956	0.952	0.944	0.942	0.934	0.926	0.918	0.919
36	0.984	0.984	0.983	0.977	0.976	0.972	0.972	0.968	0.962	0.961	0.961
47	0.987	0.987	0.987	0.983	0.982	0.979	0.979	0.974	0.970	0.971	0.970
48	0.991	0.991	0.992	0.989	0.988	0.987	0.985	0.982	0.978	0.977	0.978
60	0.995	0.995	0.995	0.995	0.993	0.992	0.990	0.989	0.987	0.986	0.987
84	0.998	0.997	0.997	0.998	0.998	0.998	0.996	0.995	0.993	0.992	0.994
120	1.000	0.999	0.999	0.999	1.000	1.000	0.999	0.999	0.998	0.999	0.999
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Fraud offences**



Figure CDF.10 Males: Fraud & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Fraud Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.230	0.260	0.213	0.217	0.241	0.222	0.219	0.202	0.199	0.145	0.158
5	0.365	0.394	0.343	0.341	0.361	0.340	0.353	0.330	0.312	0.252	0.264
6	0.450	0.487	0.428	0.432	0.431	0.407	0.422	0.416	0.386	0.325	0.322
9	0.564	0.588	0.559	0.557	0.534	0.510	0.510	0.507	0.463	0.411	0.394
11	0.588	0.607	0.583	0.583	0.558	0.538	0.540	0.536	0.497	0.443	0.433
12	0.689	0.701	0.677	0.691	0.650	0.618	0.619	0.610	0.591	0.529	0.501
18	0.796	0.816	0.793	0.803	0.778	0.746	0.732	0.735	0.702	0.657	0.624
24	0.867	0.877	0.854	0.877	0.860	0.821	0.829	0.813	0.797	0.751	0.733
36	0.941	0.950	0.924	0.944	0.925	0.904	0.906	0.902	0.888	0.867	0.846
47	0.958	0.966	0.943	0.959	0.945	0.926	0.928	0.927	0.919	0.901	0.886
48	0.974	0.984	0.964	0.972	0.965	0.944	0.951	0.956	0.940	0.924	0.924
60	0.989	0.994	0.983	0.987	0.981	0.975	0.975	0.974	0.966	0.965	0.955
84	0.998	1.000	0.994	0.996	0.996	0.994	0.993	0.995	0.990	0.995	0.985
120	0.999	1.000	1.000	0.999	1.000	0.999	1.000	1.000	1.000	0.999	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000





Figure CDF.11 Males: Summary (non motoring) & Average - Distribution of custodial length

(+) Thin line is the average CDF

## **Table Summary (non motoring) Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.627	0.630	0.645	0.657	0.678	0.677	0.651	0.642	0.656	0.664	0.690
5	0.950	0.953	0.962	0.972	0.973	0.970	0.967	0.959	0.966	0.961	0.963
6	0.999	1.000	1.000	0.998	0.996	0.992	0.998	1.000	1.000	1.000	1.000
9	0.999	1.000	1.000	0.999	0.998	0.997	0.999	1.000	1.000	1.000	1.000
11	0.999	1.000	1.000	0.999	0.998	0.998	0.999	1.000	1.000	1.000	1.000
12	0.999	1.000	1.000	1.000	0.999	0.999	0.999	1.000	1.000	1.000	1.000
18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

A.2 CDF ANALYSIS, FEMALE OFFENDERS, ALL AGES

## Violence against the person



Figure CDF.1 Females: Violence & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Violence Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.134	0.107	0.115	0.085	0.099	0.108	0.126	0.131	0.146	0.165	0.170
5	0.272	0.250	0.268	0.205	0.225	0.221	0.220	0.220	0.265	0.274	0.273
6	0.373	0.359	0.353	0.289	0.309	0.279	0.288	0.263	0.320	0.328	0.339
9	0.467	0.440	0.458	0.395	0.405	0.380	0.398	0.355	0.413	0.400	0.394
11	0.497	0.455	0.483	0.426	0.440	0.422	0.420	0.380	0.447	0.430	0.410
12	0.609	0.553	0.593	0.526	0.530	0.524	0.514	0.453	0.529	0.509	0.479
18	0.709	0.675	0.673	0.653	0.664	0.642	0.529	0.580	0.635	0.617	0.601
24	0.783	0.758	0.741	0.742	0.740	0.726	0.643	0.669	0.733	0.713	0.692
36	0.861	0.844	0.817	0.823	0.840	0.798	0.746	0.773	0.814	0.808	0.778
47	0.887	0.863	0.839	0.839	0.861	0.821	0.783	0.790	0.841	0.828	0.798
48	0.912	0.895	0.886	0.868	0.888	0.854	0.824	0.822	0.860	0.854	0.834
60	0.932	0.920	0.922	0.908	0.926	0.897	0.865	0.847	0.884	0.885	0.873
84	0.955	0.944	0.941	0.943	0.945	0.934	0.903	0.900	0.934	0.918	0.920
120	0.972	0.963	0.954	0.966	0.965	0.958	0.932	0.927	0.957	0.951	0.952
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Sexual offences**



Figure CDF.2 Females: Sexual Offences & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Sexual Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.048	0.043	0.000	0.000	0.037	0.000	0.035	0.016
5	0.000	0.091	0.000	0.048	0.043	0.000	0.029	0.074	0.065	0.053	0.032
6	0.045	0.091	0.105	0.048	0.043	0.000	0.057	0.111	0.065	0.123	0.063
9	0.091	0.182	0.158	0.143	0.174	0.130	0.057	0.111	0.065	0.123	0.111
11	0.091	0.182	0.211	0.143	0.174	0.130	0.057	0.185	0.065	0.123	0.143
12	0.182	0.182	0.421	0.238	0.261	0.130	0.086	0.222	0.129	0.211	0.159
18	0.273	0.182	0.474	0.286	0.435	0.261	0.200	0.370	0.226	0.263	0.254
24	0.318	0.273	0.474	0.381	0.522	0.261	0.314	0.593	0.323	0.368	0.317
36	0.409	0.364	0.684	0.476	0.739	0.522	0.457	0.630	0.419	0.491	0.556
47	0.455	0.364	0.737	0.524	0.739	0.609	0.486	0.630	0.452	0.526	0.587
48	0.591	0.364	0.737	0.667	0.783	0.696	0.543	0.667	0.548	0.667	0.730
60	0.727	0.727	0.842	0.667	0.913	0.696	0.629	0.741	0.613	0.772	0.778
84	0.864	0.818	1.000	0.762	0.957	0.783	0.714	0.778	0.710	0.860	0.810
120	1.000	1.000	1.000	0.952	1.000	0.913	0.886	0.852	0.871	0.912	0.921
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Robbery



Figure CDF.3 Females: Robbery & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

## **Table Robbery Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.003	0.004	0.000	0.003	0.011	0.003	0.000	0.000	0.010	0.006	0.000
5	0.067	0.046	0.093	0.045	0.037	0.029	0.035	0.000	0.016	0.012	0.021
6	0.131	0.091	0.140	0.079	0.082	0.064	0.056	0.020	0.026	0.030	0.035
9	0.205	0.200	0.208	0.151	0.145	0.108	0.091	0.089	0.052	0.060	0.050
11	0.212	0.225	0.236	0.185	0.190	0.140	0.108	0.119	0.052	0.090	0.064
12	0.359	0.340	0.323	0.322	0.283	0.277	0.238	0.183	0.115	0.138	0.106
18	0.516	0.495	0.488	0.462	0.487	0.408	0.399	0.332	0.293	0.257	0.227
24	0.708	0.656	0.621	0.637	0.617	0.557	0.580	0.510	0.455	0.419	0.397
36	0.878	0.800	0.826	0.808	0.840	0.764	0.766	0.718	0.707	0.641	0.660
47	0.897	0.860	0.873	0.863	0.900	0.841	0.818	0.782	0.806	0.749	0.766
48	0.926	0.895	0.925	0.925	0.944	0.889	0.867	0.856	0.864	0.820	0.851
60	0.949	0.926	0.957	0.952	0.970	0.949	0.916	0.936	0.942	0.910	0.901
84	0.968	0.951	0.969	0.979	0.989	0.984	0.969	0.990	0.984	0.970	0.950
120	0.974	0.972	0.984	0.990	0.993	0.997	0.993	1.000	0.995	1.000	0.993
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Theft offences**



Figure CDF.4 Females: Theft & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Theft Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.639	0.681	0.673	0.667	0.705	0.640	0.660	0.687	0.705	0.726	0.747
5	0.819	0.841	0.846	0.828	0.849	0.789	0.815	0.835	0.845	0.858	0.859
6	0.862	0.878	0.879	0.857	0.877	0.825	0.846	0.868	0.871	0.881	0.888
9	0.891	0.901	0.907	0.884	0.899	0.856	0.868	0.895	0.893	0.898	0.903
11	0.895	0.907	0.912	0.890	0.903	0.865	0.880	0.903	0.899	0.906	0.909
12	0.920	0.934	0.939	0.915	0.923	0.896	0.903	0.921	0.917	0.924	0.922
18	0.957	0.961	0.963	0.951	0.954	0.932	0.936	0.953	0.942	0.945	0.944
24	0.973	0.977	0.975	0.972	0.970	0.957	0.962	0.971	0.957	0.965	0.962
36	0.991	0.991	0.993	0.991	0.991	0.987	0.986	0.991	0.983	0.989	0.989
47	0.995	0.995	0.995	0.994	0.993	0.990	0.991	0.995	0.989	0.995	0.993
48	0.998	0.997	0.998	0.996	0.996	0.994	0.996	0.997	0.994	0.997	0.996
60	0.999	0.999	0.998	0.998	0.999	0.996	0.998	0.999	0.998	0.998	0.998
84	0.999	0.999	1.000	0.999	0.999	0.999	1.000	0.999	0.999	0.999	0.999
120	0.999	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



# **Criminal Damage & Arson offences**

**Table Criminal Damage and Arson Offences** 

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.344	0.275	0.269	0.222	0.272	0.137	0.165	0.085	0.074	0.111	0.103
5	0.409	0.352	0.312	0.296	0.309	0.171	0.184	0.106	0.118	0.136	0.221
6	0.441	0.429	0.344	0.333	0.309	0.179	0.184	0.160	0.132	0.185	0.221
9	0.462	0.440	0.376	0.333	0.333	0.197	0.194	0.160	0.147	0.210	0.235
11	0.473	0.451	0.376	0.346	0.333	0.197	0.194	0.170	0.147	0.210	0.235
12	0.538	0.462	0.409	0.395	0.370	0.205	0.223	0.245	0.206	0.247	0.294
18	0.581	0.538	0.527	0.506	0.420	0.368	0.272	0.383	0.338	0.346	0.353
24	0.634	0.615	0.656	0.654	0.494	0.556	0.456	0.628	0.485	0.642	0.574
36	0.753	0.747	0.753	0.790	0.741	0.761	0.728	0.830	0.824	0.852	0.794
47	0.774	0.791	0.817	0.840	0.802	0.812	0.777	0.872	0.897	0.877	0.897
48	0.806	0.802	0.839	0.926	0.877	0.915	0.854	0.947	0.926	0.926	0.971
60	0.817	0.824	0.849	0.951	0.914	0.940	0.883	1.000	0.956	0.938	0.971
84	0.828	0.835	0.860	0.963	0.926	0.957	0.913	1.000	1.000	0.988	1.000
120	0.903	0.912	0.925	0.963	0.951	0.974	0.951	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Drugs



Figure CDF.6 Females: Drugs vs Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

## **Table Drugs Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.111	0.129	0.139	0.105	0.110	0.117	0.165	0.173	0.173	0.167	0.169
5	0.157	0.159	0.173	0.137	0.142	0.148	0.221	0.206	0.214	0.191	0.201
6	0.210	0.195	0.197	0.168	0.184	0.200	0.242	0.233	0.253	0.220	0.224
9	0.238	0.249	0.244	0.212	0.229	0.241	0.278	0.278	0.298	0.264	0.254
11	0.248	0.253	0.252	0.223	0.236	0.261	0.306	0.297	0.310	0.281	0.270
12	0.300	0.311	0.306	0.302	0.284	0.321	0.353	0.341	0.339	0.312	0.312
18	0.416	0.431	0.434	0.422	0.415	0.431	0.448	0.427	0.412	0.412	0.365
24	0.552	0.575	0.563	0.589	0.595	0.569	0.589	0.571	0.554	0.516	0.485
36	0.715	0.726	0.737	0.749	0.773	0.749	0.790	0.765	0.770	0.758	0.746
47	0.771	0.777	0.781	0.788	0.822	0.801	0.839	0.835	0.847	0.799	0.799
48	0.809	0.815	0.824	0.830	0.870	0.851	0.869	0.878	0.884	0.855	0.871
60	0.857	0.856	0.860	0.878	0.909	0.886	0.929	0.938	0.918	0.906	0.921
84	0.938	0.940	0.934	0.959	0.954	0.949	0.979	0.983	0.973	0.956	0.991
120	0.983	0.987	0.982	0.987	0.981	0.978	0.996	1.000	1.000	0.990	0.998
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Possession of weapons



Figure CDF.7 Females: Possession Weapons & Average - Distribution of custodial lengths

(+) Thin line is the average CDF

## **Table Possession of weapons Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.540	0.470	0.436	0.340	0.393	0.434	0.444	0.430	0.440	0.336	0.304
5	0.720	0.700	0.686	0.587	0.531	0.643	0.587	0.561	0.590	0.516	0.462
6	0.830	0.780	0.786	0.687	0.621	0.734	0.635	0.675	0.664	0.664	0.725
9	0.850	0.840	0.843	0.773	0.710	0.748	0.706	0.746	0.746	0.811	0.784
11	0.850	0.850	0.843	0.787	0.717	0.762	0.722	0.789	0.761	0.836	0.807
12	0.870	0.880	0.886	0.833	0.759	0.825	0.817	0.825	0.799	0.910	0.842
18	0.900	0.920	0.907	0.867	0.841	0.867	0.849	0.877	0.836	0.918	0.889
24	0.920	0.930	0.943	0.893	0.897	0.874	0.873	0.939	0.858	0.934	0.912
36	0.940	0.970	0.971	0.967	0.931	0.909	0.889	0.956	0.873	0.951	0.930
47	0.940	0.970	0.971	0.967	0.931	0.909	0.897	0.956	0.881	0.959	0.930
48	0.940	0.970	0.971	0.967	0.931	0.909	0.905	0.965	0.881	0.967	0.936
60	0.980	0.980	0.993	1.000	0.986	0.951	0.992	1.000	0.970	0.992	0.994
84	0.980	0.980	1.000	1.000	0.993	0.965	0.992	1.000	1.000	1.000	0.994
120	0.980	0.990	1.000	1.000	1.000	0.979	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Public Order offences**



Figure CDF.8 Females: Public Order offences & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Public Order Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.118	0.188	0.239	0.547	0.563	0.593	0.582	0.607	0.606	0.626	0.639
5	0.312	0.465	0.523	0.759	0.778	0.777	0.759	0.782	0.774	0.762	0.789
6	0.527	0.594	0.614	0.834	0.845	0.835	0.845	0.868	0.816	0.842	0.839
9	0.624	0.743	0.761	0.904	0.902	0.887	0.901	0.914	0.871	0.894	0.863
11	0.677	0.762	0.784	0.913	0.918	0.902	0.916	0.925	0.894	0.913	0.877
12	0.785	0.851	0.875	0.948	0.953	0.927	0.938	0.954	0.942	0.936	0.919
18	0.935	0.941	0.966	0.983	0.991	0.972	0.985	0.975	0.974	0.981	0.951
24	0.989	0.980	0.977	0.994	1.000	0.991	0.994	0.996	0.987	0.989	0.986
36	1.000	1.000	1.000	1.000	1.000	1.000	0.997	0.996	0.994	0.992	0.993
47	1.000	1.000	1.000	1.000	1.000	1.000	0.997	0.996	0.994	1.000	0.993
48	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	0.997	1.000	0.996
60	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	0.997	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Miscellaneous offences**



Figure CDF.9 Females: Miscellaneous offences vs Average - Distribution of custodial lengt

Months

(+) Thin line is the average CDF

## **Table Miscellaneous Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.484	0.363	0.380	0.315	0.368	0.361	0.369	0.337	0.343	0.331	0.333
5	0.591	0.471	0.487	0.440	0.485	0.464	0.470	0.451	0.442	0.450	0.463
6	0.677	0.607	0.616	0.615	0.619	0.563	0.589	0.572	0.564	0.553	0.580
9	0.792	0.759	0.784	0.723	0.739	0.672	0.697	0.693	0.661	0.664	0.697
11	0.816	0.792	0.816	0.763	0.760	0.706	0.729	0.723	0.691	0.696	0.722
12	0.904	0.913	0.913	0.873	0.856	0.821	0.827	0.820	0.791	0.780	0.788
18	0.946	0.963	0.957	0.945	0.934	0.913	0.916	0.898	0.877	0.888	0.885
24	0.964	0.977	0.984	0.967	0.969	0.953	0.952	0.945	0.928	0.942	0.929
36	0.980	0.994	0.993	0.987	0.988	0.977	0.979	0.979	0.969	0.980	0.978
47	0.982	0.995	0.993	0.989	0.990	0.984	0.990	0.984	0.981	0.985	0.987
48	0.989	0.998	0.997	0.994	0.995	0.991	0.994	0.992	0.985	0.988	0.989
60	0.992	1.000	0.999	0.999	0.997	0.998	0.994	0.995	0.991	0.993	0.994
84	0.997	1.000	0.999	1.000	0.999	0.999	0.996	0.999	0.996	0.997	0.995
120	0.999	1.000	1.000	1.000	1.000	0.999	0.999	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# **Fraud offences**



Figure CDF.10 Females: Fraud & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Fraud Offences**

<b>e</b> ( )	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.332	0.285	0.231	0.257	0.254	0.170	0.213	0.217	0.203	0.150	0.121
5	0.469	0.440	0.403	0.405	0.376	0.324	0.343	0.352	0.336	0.264	0.239
6	0.568	0.580	0.488	0.541	0.472	0.409	0.457	0.452	0.404	0.339	0.289
9	0.723	0.682	0.626	0.676	0.599	0.565	0.562	0.548	0.505	0.440	0.402
11	0.751	0.695	0.647	0.696	0.633	0.601	0.600	0.577	0.539	0.466	0.458
12	0.844	0.788	0.769	0.808	0.731	0.688	0.672	0.702	0.646	0.575	0.556
18	0.929	0.895	0.883	0.924	0.835	0.822	0.819	0.811	0.766	0.702	0.694
24	0.963	0.945	0.927	0.960	0.902	0.913	0.893	0.898	0.883	0.790	0.817
36	0.991	0.978	0.966	0.987	0.955	0.966	0.964	0.950	0.951	0.920	0.930
47	0.993	0.985	0.982	0.987	0.971	0.978	0.973	0.962	0.969	0.966	0.969
48	1.000	0.995	0.987	0.991	0.978	0.988	0.979	0.972	0.984	0.984	0.978
60	1.000	1.000	0.995	0.996	0.989	0.994	0.992	0.983	0.997	0.997	0.983
84	1.000	1.000	1.000	0.998	0.998	1.000	0.998	0.998	1.000	1.000	0.992
120	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000





Figure CDF.11 Females: Summary (non motoring) & Average - Distribution of custodial leng

(+) Thin line is the average CDF

# **Table Summary (non motoring) Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.679	0.687	0.680	0.710	0.728	0.722	0.709	0.705	0.765	0.733	0.782
5	0.965	0.956	0.957	0.965	0.975	0.969	0.973	0.954	0.983	0.982	0.972
6	1.000	1.000	1.000	0.997	0.998	0.998	0.999	1.000	1.000	1.000	1.000
9	1.000	1.000	1.000	0.998	0.999	1.000	1.000	1.000	1.000	1.000	1.000
11	1.000	1.000	1.000	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000
12	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

A.3 CDF ANALYSIS, MALE JUVENILE OFFENDERS (15-17)

## Violence against the person



Figure MJ.1 Male Juveniles: Violence & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Offence Violence**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.182	0.179	0.183	0.179	0.167	0.163	0.141	0.087	0.124	0.106	0.133
6	0.370	0.350	0.345	0.380	0.330	0.326	0.262	0.196	0.271	0.239	0.286
9	0.490	0.470	0.460	0.499	0.474	0.449	0.364	0.291	0.380	0.329	0.338
11	0.540	0.514	0.514	0.552	0.521	0.486	0.444	0.353	0.415	0.361	0.367
12	0.693	0.661	0.664	0.718	0.642	0.643	0.581	0.531	0.562	0.522	0.495
18	0.795	0.773	0.759	0.806	0.713	0.718	0.696	0.651	0.636	0.608	0.586
24	0.844	0.841	0.804	0.848	0.766	0.770	0.770	0.724	0.721	0.675	0.648
36	0.891	0.891	0.852	0.892	0.826	0.820	0.815	0.778	0.787	0.725	0.743
47	0.910	0.911	0.880	0.909	0.856	0.846	0.831	0.793	0.818	0.757	0.776
48	0.930	0.930	0.911	0.923	0.886	0.877	0.859	0.840	0.833	0.804	0.838
60	0.952	0.953	0.938	0.942	0.916	0.919	0.895	0.876	0.853	0.867	0.890
84	0.961	0.961	0.962	0.962	0.938	0.944	0.920	0.924	0.880	0.929	0.924
120	0.972	0.969	0.970	0.969	0.963	0.969	0.942	0.945	0.919	0.945	0.957
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
#### **Sexual offences**



Figure MJ.2 Male Juveniles: Sexual Offences & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Sexual Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.059	0.057	0.078	0.058	0.084	0.059	0.045	0.080	0.058	0.024	0.051
6	0.168	0.105	0.104	0.087	0.168	0.118	0.125	0.120	0.072	0.084	0.090
9	0.198	0.152	0.191	0.135	0.221	0.132	0.136	0.173	0.145	0.133	0.141
11	0.238	0.171	0.226	0.154	0.242	0.147	0.159	0.227	0.174	0.145	0.154
12	0.317	0.248	0.313	0.260	0.337	0.309	0.284	0.333	0.261	0.217	0.256
18	0.446	0.333	0.426	0.317	0.389	0.426	0.455	0.467	0.449	0.361	0.359
24	0.535	0.429	0.530	0.433	0.463	0.515	0.568	0.547	0.580	0.518	0.462
36	0.634	0.629	0.626	0.529	0.611	0.676	0.693	0.653	0.681	0.663	0.667
47	0.703	0.657	0.687	0.596	0.716	0.706	0.750	0.693	0.681	0.735	0.679
48	0.762	0.714	0.783	0.673	0.779	0.765	0.830	0.827	0.826	0.819	0.756
60	0.842	0.819	0.843	0.760	0.832	0.897	0.875	0.880	0.841	0.880	0.872
84	0.931	0.952	0.939	0.875	0.916	0.941	0.920	0.973	0.913	0.964	0.923
120	0.970	0.971	0.983	0.971	0.979	0.971	0.966	1.000	0.942	1.000	0.987
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Robbery



Figure MJ.3 Male Juveniles: Robbery & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

# **Table Robbery Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
5	0.109	0.111	0.110	0.113	0.112	0.095	0.069	0.094	0.102	0.075	0.050
6	0.224	0.249	0.217	0.224	0.254	0.190	0.175	0.165	0.175	0.162	0.162
9	0.324	0.358	0.326	0.329	0.349	0.306	0.286	0.261	0.251	0.247	0.253
11	0.374	0.408	0.380	0.379	0.396	0.344	0.346	0.334	0.290	0.269	0.303
12	0.559	0.598	0.552	0.556	0.565	0.535	0.520	0.527	0.465	0.462	0.452
18	0.701	0.733	0.691	0.710	0.718	0.701	0.689	0.674	0.619	0.603	0.552
24	0.812	0.841	0.804	0.826	0.820	0.832	0.815	0.824	0.762	0.747	0.751
36	0.912	0.943	0.904	0.923	0.914	0.911	0.910	0.912	0.901	0.844	0.851
47	0.943	0.957	0.936	0.944	0.937	0.930	0.934	0.940	0.943	0.888	0.880
48	0.973	0.978	0.965	0.971	0.964	0.962	0.965	0.962	0.977	0.934	0.929
60	0.987	0.986	0.985	0.985	0.976	0.978	0.985	0.983	0.990	0.962	0.983
84	0.995	0.993	0.994	0.991	0.992	0.992	0.993	0.998	1.000	0.987	0.996
120	0.997	0.997	0.997	0.997	0.997	0.998	0.997	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

### **Theft offences**



Figure MJ.4 Male JUveniles: Theft & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Theft Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.001	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
5	0.396	0.432	0.388	0.366	0.332	0.340	0.341	0.360	0.375	0.371	0.368
6	0.624	0.639	0.612	0.574	0.545	0.549	0.547	0.517	0.573	0.573	0.597
9	0.751	0.758	0.728	0.716	0.693	0.679	0.681	0.654	0.709	0.695	0.698
11	0.787	0.791	0.778	0.755	0.735	0.736	0.732	0.693	0.749	0.729	0.713
12	0.915	0.909	0.892	0.887	0.899	0.879	0.892	0.857	0.876	0.848	0.876
18	0.976	0.970	0.958	0.958	0.958	0.954	0.957	0.933	0.945	0.925	0.919
24	0.988	0.988	0.978	0.980	0.980	0.980	0.981	0.974	0.971	0.950	0.957
36	0.995	0.997	0.991	0.994	0.989	0.991	0.989	0.989	0.983	0.981	0.977
47	0.998	0.997	0.994	0.995	0.989	0.991	0.992	0.989	0.988	0.981	0.981
48	0.999	0.999	0.994	0.996	0.991	0.995	0.995	0.990	0.990	0.983	0.988
60	0.999	0.999	0.996	0.998	0.996	0.995	0.998	1.000	0.998	0.997	0.992
84	1.000	0.999	0.999	0.999	0.998	0.998	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	0.999	1.000	0.999	0.999	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000





Figure MJ.5 Male Juveniles: Crim Dmg/Arson & Average - Distribution of custodial lengths

#### (+) Thin line is the average CDF

# **Table Criminal Damage and Arson Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.274	0.310	0.215	0.220	0.250	0.310	0.192	0.421	0.250	0.188	0.235
6	0.452	0.483	0.329	0.373	0.364	0.405	0.346	0.421	0.350	0.312	0.471
9	0.600	0.529	0.494	0.458	0.455	0.429	0.500	0.579	0.400	0.375	0.529
11	0.630	0.552	0.544	0.508	0.455	0.500	0.538	0.684	0.550	0.375	0.588
12	0.719	0.667	0.658	0.678	0.614	0.619	0.654	0.789	0.750	0.750	0.824
18	0.785	0.793	0.772	0.814	0.727	0.714	0.846	0.789	0.800	0.875	0.882
24	0.867	0.851	0.861	0.847	0.818	0.833	0.885	0.789	1.000	0.875	0.882
36	0.904	0.920	0.975	0.915	0.886	0.905	0.923	0.895	1.000	0.938	0.941
47	0.911	0.931	0.975	0.932	0.909	0.905	0.962	0.947	1.000	0.938	0.941
48	0.926	0.954	0.987	0.966	0.932	0.952	1.000	1.000	1.000	1.000	0.941
60	0.956	0.966	0.987	0.983	0.932	0.976	1.000	1.000	1.000	1.000	0.941
84	0.970	0.977	1.000	1.000	0.955	1.000	1.000	1.000	1.000	1.000	1.000
120	0.985	0.989	1.000	1.000	0.977	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Drugs



Months

(+) Thin line is the average CDF

# **Table Drugs Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
5	0.207	0.159	0.135	0.152	0.134	0.182	0.160	0.145	0.208	0.094	0.080
6	0.327	0.274	0.255	0.275	0.199	0.326	0.296	0.221	0.327	0.230	0.190
9	0.404	0.409	0.360	0.355	0.264	0.425	0.424	0.282	0.426	0.324	0.307
11	0.442	0.442	0.425	0.403	0.315	0.464	0.456	0.366	0.446	0.381	0.358
12	0.654	0.668	0.655	0.626	0.542	0.707	0.672	0.611	0.673	0.604	0.547
18	0.812	0.846	0.800	0.806	0.778	0.890	0.880	0.893	0.812	0.763	0.745
24	0.909	0.923	0.909	0.919	0.917	0.956	0.960	0.969	0.950	0.906	0.934
36	0.976	0.966	0.971	0.972	0.972	0.989	0.992	0.992	0.990	0.971	0.978
47	0.986	0.981	0.989	0.976	0.981	0.994	0.992	0.992	0.990	0.993	0.985
48	0.990	0.995	1.000	0.991	0.995	0.994	1.000	1.000	0.990	1.000	0.993
60	0.995	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Figure MJ.6 Male JUveniles: Drugs & Average - Distribution of custodial lengths

# Possession of weapons



Figure MJ.7 Male Juveniles: Possession Weapons & Average - Distribution of custodial ler

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(+) Thin line is the average CDF

# **Table Possession of weapons Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.500	0.492	0.411	0.412	0.388	0.350	0.389	0.344	0.400	0.478	0.490
6	0.696	0.619	0.606	0.611	0.590	0.589	0.602	0.568	0.705	0.687	0.738
9	0.756	0.683	0.704	0.722	0.650	0.650	0.713	0.720	0.810	0.769	0.830
11	0.798	0.709	0.732	0.731	0.699	0.706	0.769	0.752	0.848	0.784	0.864
12	0.851	0.820	0.822	0.833	0.754	0.816	0.870	0.848	0.895	0.873	0.927
18	0.887	0.884	0.868	0.866	0.787	0.847	0.926	0.880	0.962	0.925	0.951
24	0.929	0.915	0.895	0.894	0.836	0.871	0.944	0.904	0.971	0.933	0.956
36	0.970	0.947	0.937	0.968	0.962	0.945	1.000	0.984	0.990	0.985	0.981
47	0.976	0.958	0.948	0.972	0.973	0.945	1.000	0.984	0.990	0.985	0.981
48	0.982	0.963	0.965	0.995	0.973	0.975	1.000	0.984	0.990	0.993	0.990
60	0.988	0.974	0.983	1.000	0.978	0.982	1.000	1.000	0.990	0.993	0.995
84	0.994	0.984	0.990	1.000	0.984	0.988	1.000	1.000	0.990	1.000	0.995
120	0.994	0.989	0.997	1.000	0.995	0.994	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## **Public Order offences**



Figure MJ.8 Male Juveniles: Public Order offences & Average - Distribution of custodial ler

Months

(+) Thin line is the average CDF

#### **Table Public Order Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000
5	0.246	0.215	0.282	0.379	0.399	0.416	0.401	0.400	0.487	0.372	0.382
6	0.527	0.514	0.605	0.653	0.638	0.631	0.581	0.691	0.808	0.538	0.632
9	0.655	0.660	0.718	0.830	0.813	0.751	0.738	0.818	0.872	0.756	0.776
11	0.759	0.745	0.773	0.859	0.881	0.811	0.802	0.836	0.885	0.795	0.868
12	0.921	0.915	0.886	0.968	0.951	0.953	0.953	0.982	0.936	0.923	0.921
18	0.975	0.980	0.968	0.996	0.996	0.983	0.994	1.000	1.000	0.987	1.000
24	0.990	0.992	0.986	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
47	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
48	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.987	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## **Miscellaneous offences**



Figure MJ.9 Male Juveniles: Miscellaneous offences vs Average - Distribution of custodial

(+) Thin line is the average CDF

## **Table Miscellaneous Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.008	0.003	0.000	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000
5	0.496	0.489	0.464	0.553	0.545	0.530	0.517	0.551	0.483	0.472	0.432
6	0.701	0.704	0.698	0.751	0.738	0.705	0.712	0.753	0.736	0.629	0.670
9	0.833	0.793	0.810	0.861	0.834	0.815	0.839	0.910	0.828	0.775	0.784
11	0.853	0.836	0.855	0.899	0.882	0.850	0.898	0.933	0.851	0.843	0.830
12	0.970	0.948	0.964	0.979	0.930	0.955	0.932	0.978	0.954	0.933	0.989
18	0.990	0.994	0.996	0.987	0.984	0.990	0.983	1.000	0.989	0.955	1.000
24	0.995	1.000	1.000	0.987	0.995	0.995	0.992	1.000	1.000	0.978	1.000
36	0.997	1.000	1.000	0.992	1.000	0.995	0.992	1.000	1.000	0.989	1.000
47	1.000	1.000	1.000	0.992	1.000	0.995	1.000	1.000	1.000	0.989	1.000
48	1.000	1.000	1.000	0.996	1.000	1.000	1.000	1.000	1.000	0.989	1.000
60	1.000	1.000	1.000	0.996	1.000	1.000	1.000	1.000	1.000	0.989	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.989	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# **Fraud offences**



Figure MJ.10 Male Juveniles: Fraud & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Fraud Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.450	0.615	0.588	0.538	0.250	0.333	0.714	0.400	0.833	0.455	0.667
6	0.700	0.846	0.882	0.692	0.917	0.500	0.857	0.700	0.833	0.455	0.667
9	0.800	0.923	0.882	0.769	0.917	0.833	0.857	0.800	0.833	0.727	0.667
11	0.850	0.923	0.882	0.769	0.917	0.833	0.857	0.900	0.833	0.909	0.667
12	0.950	1.000	1.000	1.000	0.917	1.000	1.000	1.000	1.000	0.909	1.000
18	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
36	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
47	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
48	0.950	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



# Summary (non Motoring) offences

(+) Thin line is the average CDF

# **Table Summary (non motoring) Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.001	0.003	0.000	0.000	0.005	0.008	0.003	0.009	0.000	0.000	0.011
5	0.748	0.770	0.748	0.793	0.829	0.849	0.790	0.853	0.872	0.799	0.826
6	0.985	0.994	0.988	0.956	0.953	0.995	0.984	0.991	0.985	0.984	0.974
9	0.990	0.998	0.992	0.975	0.979	0.997	0.987	0.995	0.995	1.000	0.995
11	0.990	0.998	0.994	0.979	0.991	0.997	0.987	0.995	0.995	1.000	0.995
12	0.994	1.000	0.998	0.988	0.998	1.000	0.994	1.000	1.000	1.000	1.000
18	0.997	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Figure MJ.11 Male Juveniles: Summary (non motoring) & Average - Distribution of custodia

A.4 CDF ANALYSIS, MALE YOUNG ADULT OFFENDERS (18-20)

# Violence against the person



Figure MYA.1 Male 18-20 offenders: Violence & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

## **Table Offence Violence**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.071	0.069	0.058	0.062	0.057	0.057	0.062	0.063	0.072	0.098	0.128
5	0.193	0.181	0.164	0.157	0.137	0.127	0.128	0.125	0.163	0.173	0.214
6	0.287	0.273	0.247	0.214	0.201	0.187	0.183	0.174	0.210	0.224	0.273
9	0.386	0.383	0.357	0.332	0.328	0.303	0.298	0.262	0.299	0.313	0.350
11	0.404	0.411	0.384	0.363	0.367	0.350	0.341	0.302	0.327	0.355	0.376
12	0.516	0.536	0.492	0.472	0.493	0.477	0.430	0.396	0.417	0.445	0.434
18	0.679	0.683	0.649	0.647	0.657	0.628	0.588	0.526	0.558	0.584	0.557
24	0.766	0.781	0.752	0.744	0.742	0.714	0.673	0.616	0.668	0.668	0.628
36	0.857	0.868	0.837	0.832	0.829	0.793	0.766	0.704	0.740	0.746	0.704
47	0.884	0.884	0.857	0.860	0.854	0.822	0.793	0.746	0.762	0.772	0.728
48	0.901	0.914	0.889	0.892	0.883	0.853	0.824	0.790	0.793	0.796	0.762
60	0.929	0.946	0.919	0.916	0.922	0.895	0.862	0.825	0.830	0.837	0.812
84	0.955	0.964	0.950	0.946	0.947	0.928	0.902	0.879	0.870	0.875	0.865
120	0.965	0.973	0.959	0.958	0.961	0.947	0.931	0.913	0.915	0.919	0.906
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Sexual offences**



Figure MYA.2 Male 18-20 offenders: Sexual Offences & Average - Distribution of custodial

Months

(+) Thin line is the average CDF

#### **Table Sexual Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.047	0.035	0.038	0.057	0.037	0.041	0.042	0.034	0.053	0.015	0.034
5	0.101	0.071	0.051	0.096	0.070	0.074	0.066	0.044	0.086	0.034	0.061
6	0.163	0.135	0.102	0.121	0.103	0.101	0.090	0.069	0.107	0.064	0.088
9	0.186	0.156	0.134	0.178	0.159	0.124	0.137	0.098	0.140	0.113	0.100
11	0.209	0.177	0.153	0.178	0.173	0.134	0.151	0.103	0.152	0.118	0.107
12	0.295	0.277	0.197	0.236	0.220	0.189	0.179	0.167	0.202	0.163	0.161
18	0.426	0.390	0.363	0.331	0.364	0.295	0.325	0.304	0.309	0.281	0.295
24	0.535	0.567	0.459	0.427	0.467	0.456	0.481	0.451	0.416	0.384	0.418
36	0.612	0.652	0.592	0.599	0.659	0.585	0.604	0.627	0.556	0.591	0.586
47	0.659	0.709	0.611	0.650	0.696	0.618	0.642	0.647	0.638	0.660	0.636
48	0.729	0.787	0.720	0.707	0.790	0.691	0.689	0.706	0.700	0.724	0.693
60	0.822	0.894	0.796	0.834	0.846	0.779	0.778	0.789	0.765	0.798	0.762
84	0.938	0.972	0.924	0.917	0.930	0.894	0.915	0.897	0.864	0.897	0.866
120	0.984	1.000	0.987	1.000	0.995	0.977	0.991	0.961	0.947	0.936	0.946
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Robbery



Figure MYA.3 Male 18-20 offenders: Robbery & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

# **Table Robbery Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.003	0.006	0.005	0.002	0.005	0.002	0.002	0.002	0.001	0.003	0.000
5	0.008	0.014	0.013	0.009	0.009	0.007	0.006	0.008	0.010	0.005	0.011
6	0.039	0.039	0.025	0.022	0.017	0.021	0.027	0.020	0.022	0.018	0.030
9	0.058	0.088	0.066	0.063	0.060	0.062	0.062	0.045	0.060	0.053	0.059
11	0.063	0.101	0.082	0.080	0.080	0.085	0.084	0.067	0.078	0.074	0.087
12	0.125	0.189	0.178	0.171	0.172	0.153	0.149	0.135	0.156	0.108	0.115
18	0.283	0.354	0.343	0.333	0.332	0.315	0.305	0.292	0.263	0.228	0.220
24	0.468	0.534	0.494	0.504	0.515	0.481	0.499	0.456	0.434	0.386	0.363
36	0.748	0.792	0.742	0.752	0.749	0.735	0.737	0.729	0.677	0.639	0.630
47	0.823	0.853	0.799	0.831	0.826	0.800	0.808	0.816	0.778	0.724	0.739
48	0.895	0.922	0.878	0.904	0.888	0.875	0.868	0.878	0.842	0.793	0.824
60	0.959	0.966	0.947	0.946	0.953	0.935	0.927	0.937	0.913	0.864	0.900
84	0.987	0.990	0.983	0.983	0.988	0.981	0.979	0.978	0.969	0.946	0.972
120	0.996	0.999	0.998	0.999	0.999	0.999	0.996	0.999	0.993	0.990	0.998
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## **Theft offences**



Figure MYA.4 Male 18-20 offenders: Theft & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Theft Offences**

CI (months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.395	0.393	0.406	0.378	0.370	0.298	0.303	0.296	0.391	0.410	0.370
5	0.564	0.562	0.555	0.496	0.471	0.389	0.405	0.395	0.493	0.516	0.483
6	0.636	0.629	0.616	0.546	0.513	0.440	0.461	0.450	0.545	0.569	0.543
9	0.685	0.688	0.680	0.612	0.579	0.525	0.532	0.531	0.603	0.626	0.584
11	0.699	0.703	0.699	0.632	0.601	0.552	0.561	0.557	0.625	0.644	0.613
12	0.777	0.779	0.769	0.720	0.692	0.646	0.643	0.630	0.685	0.714	0.686
18	0.872	0.860	0.857	0.820	0.806	0.779	0.769	0.736	0.763	0.805	0.776
24	0.919	0.911	0.905	0.878	0.869	0.842	0.842	0.810	0.831	0.855	0.859
36	0.983	0.978	0.977	0.964	0.967	0.956	0.955	0.942	0.955	0.951	0.955
47	0.987	0.985	0.984	0.977	0.975	0.969	0.969	0.963	0.971	0.969	0.967
48	0.991	0.991	0.991	0.987	0.988	0.983	0.980	0.974	0.980	0.980	0.975
60	0.996	0.995	0.995	0.994	0.994	0.990	0.987	0.984	0.987	0.987	0.981
84	0.999	1.000	0.999	0.999	0.998	0.998	0.996	0.992	0.995	0.993	0.993
120	1.000	1.000	0.999	1.000	0.999	1.000	1.000	0.999	1.000	1.000	0.999
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# **Criminal Damage & Arson offences**



Figure MYA.5 Male 18-20 offenders: Crim Dmg/Arson & Average - Distribution of custodial

(+) Thin line is the average CDF

# **Table Criminal Damage and Arson Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.549	0.552	0.439	0.331	0.375	0.295	0.225	0.181	0.277	0.193	0.213
5	0.638	0.622	0.503	0.359	0.438	0.309	0.255	0.194	0.385	0.351	0.234
6	0.681	0.641	0.535	0.380	0.488	0.331	0.275	0.208	0.385	0.351	0.319
9	0.718	0.683	0.567	0.415	0.538	0.353	0.304	0.264	0.385	0.404	0.362
11	0.728	0.699	0.578	0.423	0.550	0.367	0.304	0.264	0.400	0.404	0.426
12	0.761	0.749	0.679	0.472	0.625	0.460	0.382	0.306	0.477	0.474	0.468
18	0.817	0.830	0.733	0.648	0.687	0.590	0.510	0.500	0.569	0.596	0.553
24	0.901	0.892	0.802	0.711	0.762	0.755	0.686	0.667	0.692	0.684	0.702
36	0.958	0.973	0.882	0.873	0.869	0.856	0.843	0.861	0.815	0.842	0.894
47	0.962	0.977	0.936	0.901	0.944	0.914	0.912	0.903	0.908	0.895	0.936
48	0.977	0.988	0.979	0.951	0.969	0.978	0.922	0.958	0.923	0.912	0.979
60	0.981	0.996	0.995	0.986	1.000	0.986	0.971	0.958	0.954	0.965	0.979
84	0.995	1.000	0.995	1.000	1.000	0.993	0.990	0.958	1.000	0.982	0.979
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.986	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Drugs



Figure MYA.6 Male 18-20 offenders: Drugs & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

# **Table Drugs Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.115	0.128	0.148	0.130	0.155	0.152	0.122	0.104	0.125	0.120	0.098
5	0.161	0.166	0.178	0.157	0.182	0.176	0.146	0.118	0.144	0.147	0.117
6	0.201	0.214	0.211	0.173	0.206	0.219	0.183	0.139	0.185	0.183	0.146
9	0.245	0.266	0.243	0.208	0.252	0.267	0.231	0.190	0.252	0.243	0.187
11	0.257	0.284	0.248	0.220	0.267	0.276	0.249	0.203	0.266	0.262	0.200
12	0.327	0.358	0.306	0.276	0.311	0.341	0.304	0.257	0.320	0.307	0.237
18	0.451	0.508	0.438	0.418	0.449	0.467	0.444	0.381	0.420	0.391	0.309
24	0.615	0.645	0.629	0.612	0.621	0.633	0.647	0.570	0.583	0.558	0.474
36	0.822	0.851	0.850	0.846	0.825	0.845	0.899	0.862	0.865	0.861	0.832
47	0.884	0.905	0.901	0.907	0.903	0.913	0.946	0.938	0.917	0.926	0.920
48	0.931	0.941	0.949	0.944	0.947	0.949	0.973	0.959	0.952	0.955	0.960
60	0.969	0.973	0.974	0.972	0.979	0.988	0.993	0.987	0.982	0.975	0.980
84	0.995	0.995	0.994	0.991	0.995	0.996	0.998	0.994	0.995	0.997	0.995
120	0.999	0.999	0.999	1.000	0.998	0.999	1.000	0.996	1.000	0.999	0.998
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

# Possession of weapons



Figure MYA.7 Male 18-20 offenders: Possession Weapons & Average - Distribution of cust

(+) Thin line is the average CDF

# **Table Possession of weapons Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.479	0.455	0.341	0.409	0.356	0.281	0.325	0.320	0.353	0.301	0.200
5	0.679	0.687	0.525	0.550	0.521	0.432	0.473	0.467	0.494	0.439	0.359
6	0.749	0.751	0.605	0.628	0.596	0.539	0.602	0.578	0.598	0.572	0.597
9	0.796	0.787	0.676	0.721	0.684	0.648	0.681	0.683	0.701	0.657	0.700
11	0.802	0.790	0.684	0.729	0.697	0.670	0.699	0.706	0.721	0.696	0.719
12	0.836	0.822	0.739	0.785	0.765	0.731	0.765	0.791	0.776	0.779	0.769
18	0.870	0.863	0.798	0.843	0.813	0.795	0.843	0.830	0.856	0.843	0.830
24	0.891	0.902	0.834	0.862	0.853	0.837	0.886	0.850	0.897	0.867	0.866
36	0.923	0.950	0.875	0.912	0.895	0.884	0.928	0.892	0.920	0.912	0.910
47	0.947	0.957	0.883	0.918	0.901	0.891	0.931	0.902	0.922	0.917	0.920
48	0.966	0.970	0.895	0.933	0.912	0.904	0.937	0.912	0.928	0.920	0.924
60	0.994	0.995	0.978	0.978	0.987	0.971	0.976	0.980	0.980	0.964	0.979
84	1.000	1.000	0.998	0.991	0.996	0.998	0.991	1.000	0.997	0.997	0.992
120	1.000	1.000	1.000	1.000	1.000	1.000	0.994	1.000	1.000	0.997	0.998
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## **Public Order offences**



Figure MYA.8 Male 18-20 offenders: Public Order offences & Average - Distribution of cust

Moritin

(+) Thin line is the average CDF

# **Table Public Order Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.105	0.106	0.101	0.280	0.274	0.210	0.211	0.244	0.291	0.296	0.256
5	0.246	0.245	0.234	0.430	0.423	0.318	0.336	0.343	0.393	0.409	0.374
6	0.392	0.387	0.369	0.519	0.533	0.421	0.401	0.444	0.462	0.499	0.470
9	0.550	0.582	0.559	0.661	0.659	0.579	0.538	0.574	0.570	0.643	0.633
11	0.586	0.621	0.609	0.703	0.698	0.626	0.587	0.639	0.650	0.710	0.693
12	0.722	0.771	0.742	0.802	0.819	0.746	0.702	0.732	0.783	0.803	0.815
18	0.892	0.917	0.884	0.936	0.950	0.877	0.848	0.883	0.934	0.916	0.923
24	0.956	0.966	0.965	0.987	0.979	0.957	0.947	0.958	0.983	0.959	0.974
36	0.985	0.997	0.991	0.999	0.998	0.994	0.984	0.990	0.997	0.974	0.987
47	0.989	0.997	0.998	0.999	1.000	1.000	0.990	1.000	1.000	0.988	0.994
48	0.998	1.000	1.000	1.000	1.000	1.000	0.994	1.000	1.000	0.991	0.994
60	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	0.994	0.997
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## **Miscellaneous offences**



Figure MYA.9 Male 18-20 offenders: Miscellaneous offences vs Average - Distribution of ci

Months

(+) Thin line is the average CDF

## **Table Miscellaneous Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.484	0.440	0.429	0.470	0.504	0.427	0.436	0.384	0.422	0.389	0.339
5	0.652	0.615	0.558	0.594	0.610	0.537	0.541	0.504	0.564	0.513	0.494
6	0.750	0.718	0.682	0.711	0.705	0.676	0.643	0.644	0.655	0.618	0.627
9	0.841	0.817	0.793	0.827	0.796	0.794	0.756	0.785	0.782	0.754	0.755
11	0.864	0.844	0.827	0.845	0.820	0.832	0.805	0.824	0.824	0.803	0.809
12	0.938	0.928	0.906	0.931	0.905	0.906	0.898	0.900	0.885	0.891	0.900
18	0.989	0.983	0.978	0.977	0.967	0.965	0.963	0.959	0.944	0.968	0.962
24	0.998	0.995	0.989	0.985	0.984	0.983	0.987	0.986	0.976	0.975	0.984
36	1.000	1.000	0.998	0.992	0.997	0.993	0.997	0.998	0.990	0.993	0.992
47	1.000	1.000	0.999	0.995	0.997	0.994	1.000	0.998	0.992	0.995	0.994
48	1.000	1.000	0.999	0.998	0.997	0.999	1.000	0.998	0.997	0.998	0.998
60	1.000	1.000	0.999	0.999	0.998	1.000	1.000	0.998	0.997	0.998	0.998
84	1.000	1.000	1.000	1.000	0.999	1.000	1.000	0.998	0.998	0.998	0.998
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	0.998	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### **Fraud offences**



Figure MYA.10 Male 18-20 offenders: Fraud & Average - Distribution of custodial lengths

Months

(+) Thin line is the average CDF

#### **Table Fraud Offences**

	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-
CL(months)	CDF										
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.380	0.386	0.347	0.354	0.440	0.322	0.275	0.421	0.306	0.220	0.329
5	0.533	0.602	0.574	0.515	0.580	0.478	0.391	0.579	0.403	0.373	0.571
6	0.641	0.727	0.644	0.623	0.620	0.544	0.464	0.632	0.458	0.441	0.657
9	0.717	0.795	0.772	0.708	0.760	0.644	0.565	0.807	0.611	0.475	0.714
11	0.739	0.807	0.792	0.715	0.790	0.689	0.623	0.825	0.667	0.492	0.757
12	0.772	0.818	0.891	0.838	0.880	0.767	0.768	0.825	0.847	0.627	0.843
18	0.848	0.943	0.970	0.915	0.980	0.833	0.884	0.877	0.917	0.847	0.886
24	0.924	0.977	0.990	0.977	0.980	0.867	0.942	0.965	0.958	0.881	0.929
36	0.989	0.989	1.000	0.992	0.990	0.944	1.000	0.965	0.986	0.949	0.943
47	1.000	0.989	1.000	0.992	0.990	0.978	1.000	0.982	1.000	0.983	0.986
48	1.000	1.000	1.000	1.000	1.000	0.989	1.000	0.982	1.000	1.000	0.986
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000





Figure MYA.11 Male 18-20 offenders: Summary (non motoring) & Average - Distribution of

(+) Thin line is the average CDF

# **Table Summary (non motoring) Offences**

CL(months)	2006- CDF	2007- CDF	2008- CDF	2009- CDF	2010- CDF	2011- CDF	2012- CDF	2013- CDF	2014- CDF	2015- CDF	2016- CDF
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.694	0.690	0.700	0.743	0.768	0.779	0.734	0.721	0.709	0.705	0.724
5	0.957	0.965	0.972	0.981	0.984	0.969	0.969	0.961	0.974	0.955	0.965
6	1.000	1.000	1.000	0.998	0.998	0.988	0.999	1.000	1.000	1.000	1.000
9	1.000	1.000	1.000	0.998	0.998	0.993	0.999	1.000	1.000	1.000	1.000
11	1.000	1.000	1.000	0.999	0.998	0.995	0.999	1.000	1.000	1.000	1.000
12	1.000	1.000	1.000	1.000	1.000	0.996	0.999	1.000	1.000	1.000	1.000
18	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
360	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000