

Investigating the association between an offender's sex and ethnicity and the sentence imposed at the Crown Court for drug offences

Overview

The Sentencing Council has conducted analysis of sentencing data to consider the association between an offender's sex and ethnicity and the sentence imposed at the Crown Court for supply, possession with intent to supply and conspiracy to supply a controlled drug of classes A and B. In 2018, these offences accounted for around 12 per cent of all adult offenders sentenced at the Crown Court.¹

The findings suggest that after controlling for many (but not all) of the main factors that sentencers are required to take into account when sentencing these three specific offences, an offender's sex, and to a lesser extent, their ethnicity, were associated with different sentencing outcomes.

Approach

- The Sentencing Council is revising its *Drug Offences* guideline. To feed into the guideline's development, the Council has conducted analysis of sentencing data to consider the association of different factors with sentencing outcomes for selected offences. In particular, the Council wanted to understand the extent to which the sentence imposed for these offences may vary with an offender's sex or ethnicity.²
- Data from the Sentencing Council's Crown Court Sentencing Survey (CCSS) were used, so the study looked only at sentencing practice at the Crown Court. The analysis looked specifically at offences of supply, possession with intent to supply and conspiracy to supply a controlled drug of classes A and B,³ and used data from the period April 2012 to the end of March 2015.
- Two statistical models were constructed to investigate the relationship between an offender's sex and ethnicity, and: (i) the likelihood of receiving an immediate custodial sentence, and (ii) the length of the sentence imposed for those receiving an immediate custodial sentence.
- The CCSS allowed us to identify and control for a wide range of factors considered by the judge in sentencing drug supply offences, specifically the culpability of the

¹ This figure includes supply, possession with intent to supply and conspiracy to supply a controlled drug of classes A and B. This figure will not match any of the outputs published by the Ministry of Justice, as in their data tools, supply offences are grouped with production offences, and so their figures cover additional offences.

² Ethnicity and sex were studied separately for this analysis – an intersectional analysis looking at the combination of the two was not conducted.

³ The Sentencing Council's existing guideline for these offences can be seen here:

<https://www.sentencingcouncil.org.uk/offences/crown-court/item/supplying-or-offering-to-supply-a-controlled-drug/>

offender, the harm caused by the offence, many of the relevant aggravating factors (including the number of previous convictions) and mitigating factors, whether and when the offender pleaded guilty, and the offender's age group. However, as not all factors considered by the judge could be included in the analysis, it is not possible to discount completely the influence of any factors that were not included⁴, and so the results of this analysis should not be regarded as conclusive.

- The Council has considered this analysis and has outlined in the accompanying *Drug Offences: Consultation* some actions that the Council intends to take as a result of the findings.

Findings related to an offender's sex

In relation to the drug offences studied, the analysis found that an offender's sex was associated with a statistically significant⁵ difference in the likelihood of receiving an immediate custodial sentence, after controlling for other factors considered by the judge, as outlined above.

The analysis showed that the odds of a male offender receiving an immediate custodial sentence were 2.4 times the size of (or 140 per cent higher than)⁶ the odds for a female offender. This **does not** mean that males are '140 per cent more likely' than females to receive an immediate custodial sentence, and it does not mean that 240 males are sentenced to immediate custody for every 100 females.

It can be difficult to picture what odds ratios like those presented above mean in real terms. To illustrate what this finding **does** mean, it is easier to talk of probabilities instead, which allow us to compare specific groups of offenders. For example, if 100 offenders of each sex were sentenced for possession with intent to supply a class B drug, and had the most common factors⁷ in the data taken into account by the judge, then around 37 male offenders and 20 female offenders would be expected to be sentenced to immediate custody (around 17 more male offenders than female offenders). For the same example but with a class A drug, around 93 male offenders and around 85 female offenders would be expected to be sentenced to immediate custody (around eight more male than female offenders).

When looking at the association between an offender's sex and the length of an immediate custodial sentence for these offences taken together, controlling for broadly the same

⁴ This refers to any factors not included in the statistical analysis, which includes factors collected as part of the Crown Court Sentencing Survey that were not included in the analysis (e.g. because they were only indicated on a very small proportion of forms – see the Methodology section for more details). It also includes factors that were not collected as part of the CCSS.

⁵ 'Statistically significant' is a statistical term that refers to a result that we are confident is not simply the result of random chance, i.e. it provides an assessment of how likely it is that we would see these results if chance alone was operating. All statistical tests in this analysis were testing for a change at the 5% significance level, which is the standard level used for this type of analysis. The phrase 'statistically significant at the 0.05 (or 5%) level' indicates that, if chance alone was operating, a result like this would occur less than 5 times in 100, or less than 5% of the time.

⁶ Percentage comparisons are rounded to the nearest 10 per cent.

⁷ These figures are taken from the predicted probabilities from the statistical model, and specific examples are given here, using the 'reference offender' for each class of drug. The characteristics and factors were: a White offender, aged 26 to 50, sentenced for possession with intent to supply a drug (class A and class B are presented separately), who was categorised as having a significant role and placed in harm level 3, with no aggravating or mitigating factors, and who pleaded guilty at the first opportunity. See the 'Specific examples of probabilities' sub-section on page 16 for more details.

factors as above,⁸ it was also found that male offenders received sentences on average around five months (or 14 per cent) longer than those imposed for females.

Findings related to an offender's ethnicity

In relation to the offences studied, the analysis found that an offender's ethnicity was associated with a statistically significant difference in the likelihood of receiving an immediate custodial sentence, after controlling for other factors considered by the judge, as outlined above.

The analysis showed that the odds for Asian and Other⁹ ethnicity offenders were each 1.5 times the size of (or 50 per cent higher than) the odds for White offenders, and that the odds of a Black offender receiving an immediate custodial sentence were 1.4 times the size of (or 40 per cent higher¹⁰ than) the odds for a White offender. This **does not** mean that, for example, Asian offenders are '50 per cent more likely' than White offenders to receive an immediate custodial sentence, and it does not mean that 150 Asian offenders are sentenced to immediate custody for every 100 White offenders.

It can be difficult to picture what odds ratios like those presented above mean in real terms. To illustrate what this finding **does** mean, it is easier to talk of probabilities instead, which allow us to compare specific groups of offenders. For example, if 100 offenders from each ethnic group studied were sentenced for possession with intent to supply a class B drug, and had the most common factors¹¹ in the data taken into account by the judge, then around 37 White offenders, around 46 Asian offenders, around 46 Other ethnicity offenders and around 44 Black offenders would be expected to be sentenced to immediate custody, so around nine more of the offenders in each of the Asian and Other ethnicity groups and seven more of the offenders in the Black group would be expected to be sentenced to immediate custody than in the White group.

For the same example but with a class A drug, around 93 White offenders, 95 Asian offenders and 95 Black offenders would be expected to be sentenced to immediate custody, so around two more offenders would be expected to be sentenced to immediate custody in both the Asian group and the Black group than in the White group.¹²

When looking at the association between an offender's ethnicity and the length of an immediate custodial sentence for these offences taken together, controlling for broadly the same factors as before, it was found that Asian offenders received custodial sentences that were on average around one month (or 4 per cent) longer than the sentences

⁸ Most of the same factors were used for this model of custodial sentence lengths as for the model looking at the likelihood of immediate custody. However, a slightly different list of aggravating and mitigating factors was used, to ensure that the analysis was based on the factors most commonly taken into account. See the Methodology section for details.

⁹ The 'Other' ethnicity group includes Chinese, Japanese, or South East Asian offenders, Middle Eastern offenders and any other ethnic group not counted within White, Black or Asian. See the table on page 8 for the Census categorisation of ethnic groups.

¹⁰ Percentage comparisons are rounded to the nearest 10 per cent.

¹¹ These figures are taken from the predicted probabilities from the statistical model, and specific examples are given here, using the 'reference offender' for each class of drug. The characteristics and factors were: a male offender, aged 26 to 50, sentenced for possession with intent to supply a drug (class A and class B are presented separately), who was categorised as having a significant role and placed in harm level 3, with no aggravating or mitigating factors, and who pleaded guilty at the first opportunity. See the 'Specific examples of probabilities' sub-section on page 16 for more details.

¹² It was not possible to provide a comparable class A example for Other ethnicity offenders, due to low volumes of data for this group.

imposed for White offenders, but no differences were found when comparing the custodial sentence lengths of White offenders with Black and Other ethnicity offenders.

Summary

- Overall, the analysis of Crown Court sentencing data from April 2012 to the end of March 2015 relating to these drug supply offences shows that, even after controlling for a considerable amount of the case mix¹³ within the offences studied, offenders of different sex and ethnicity sometimes receive different sentences, which the main guideline factors¹⁴ included in the analysis do not account for.
- By taking into account many, but not all, of the factors considered by the judge, in relation to drug supply offences, the analysis found that male offenders were considerably more likely to be sentenced to immediate custody than females, and males received longer custodial sentences than females. Black, Asian and Other offenders were found to be more likely to receive an immediate custodial sentence for these offences than White offenders. Asian offenders were found to receive longer sentences than White offenders but no differences were found in sentence lengths imposed for Black and Other offenders compared with White offenders.
- For all analyses in this study, not all factors considered by the judge could be included, so it is not possible to discount completely the influence of any factors not included in the analysis. Therefore, the results of this analysis should not be regarded as conclusive.
- The Council has considered this analysis and has outlined in the accompanying *Drug Offences: Consultation* some actions that the Council intends to take as a result of the findings.

Introduction

The Sentencing Council's *Drug Offences Definitive Guideline* came into force in February 2012. The Council is aware that the nature of drug offending has changed since 2012, with, for example, the emergence of new drugs, new methods of dealing, new legislation (the Psychoactive Substances Act 2016), and the increased seriousness of the cases reaching the courts (including drugs of higher purity).¹⁵ Therefore, the Council decided to review and update the guideline. A consultation on a revised *Drug Offences* guideline has been launched alongside this paper.

¹³ 'Case mix' refers to the variation in the types of offences being sentenced, including the multiple levels of culpability and harm, the different aggravating and mitigating factors taken into account across different cases and the different guilty plea indications and stages.

¹⁴ This refers to the factors included in the statistical models: the levels of culpability and harm, the most common aggravating and mitigating factors, the guilty plea indicator and stage, the class of the drug and the specific offence. See the Methodology section for more details of all of the factors taken into account.

¹⁵ This is corroborated by the National Crime Agency's report 'National Strategic Assessment of Serious and Organised Crime 2017', which describes increased volumes of higher purity cocaine and heroin being seen in the UK (see page 34, paragraphs 123 and 125): <http://www.nationalcrimeagency.gov.uk/publications/807-national-strategic-assessment-of-serious-andorganised-crime-2017/file>. Seizures data also show the purity of heroin, in particular, increasing in recent years (see page 132): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/669021/UK-drug-situation-2016-report.pdf

As part of the production of each guideline, the Council explores data on sentencing outcomes for different demographic groups, and considers any potential disparities based on sex, ethnicity and other personal factors, as part of its obligations under the Public Sector Equality Duty.¹⁶

The Council is also aware of Ministry of Justice analysis¹⁷ that was drawn on as part of the *Lammy Review of Black, Asian and Minority Ethnic representation in the Criminal Justice System*¹⁸, which suggested disparities in sentencing for drug offences for offenders of different ethnicities, namely that the odds of imprisonment overall for Black, Asian and Minority Ethnic offenders were 2.4 times as large as the odds for White offenders.¹⁹ This can also be quoted as the odds for minority ethnic group offenders being ‘240 per cent as large’, or ‘140 per cent higher’ than the odds for White offenders.²⁰

Given the need to analyse data on sex and ethnicity as part of the development of the revised *Drug Offences* guideline and in order to investigate some of the issues raised in the Lammy Review, the Council decided to conduct a new piece of analysis to investigate the relationship between an offender’s sex, ethnicity and sentencing outcomes, for these particular offences.

Approach

It has been shown previously that offenders of different ethnicities and sexes often receive different sentencing outcomes overall. The Ministry of Justice publishes *Statistics on Race and the Criminal Justice System*²¹ and *Statistics on Women and the Criminal Justice System*²² biennially (in alternate years). The most recent versions of these publications showed that overall, for all offences grouped together, both the custody rate²³ and the average custodial sentence length for female offenders were consistently lower than the same measures for male offenders.²⁴

¹⁶ The Public Sector Equality Duty (PSED) requires public bodies to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations between different people when carrying out their activities.

¹⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568896/association-s-between-ethnic-background-being-sentenced-to-prison-in-the-crown-court-in-england-and-wales-2015.pdf

¹⁸ The Lammy Review, chaired by David Lammy MP, is an independent review of the treatment of, and outcomes for, Black, Asian and Minority Ethnic individuals in the Criminal Justice System (CJS). More information can be found here: <https://www.gov.uk/government/organisations/lammy-review>.

¹⁹ Another piece of analysis on the topic of racial disparities was published by the Ministry of Justice at around the same time as the paper referenced here; see ‘*Black, Asian and Minority Ethnic disproportionality in the Criminal Justice System in England and Wales*’:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/639261/bame-disproportionality-in-the-cjs.pdf

²⁰ In the same study, the MoJ analysis showed no disparities between ethnicities in the likelihood of imprisonment for acquisitive violence offences or sexual offences.

²¹ <https://www.gov.uk/government/collections/race-and-the-criminal-justice-system>

²² <https://www.gov.uk/government/collections/women-and-the-criminal-justice-system>

²³ The custody rate is calculated by dividing the number of offenders sentenced to immediate custody by the total number of offenders sentenced, and therefore represents the use of immediate custody as a proportion of offenders sentenced.

²⁴ In 2017, 10 per cent of males and 2 per cent of females were sentenced to immediate custody, and the average custodial sentence lengths (ACSL) were 17.6 months for males and 10.0 months for females. See *Women and the Criminal Justice System 2017* (linked above) main report pages 56 and 57.

Additionally, offenders from all of the minority ethnic groups received longer average custodial sentence lengths than White offenders. Black, Asian and ‘Chinese or Other’ offenders had statistically significantly higher custody rates than White offenders, but no difference was found between Mixed ethnicity and White offenders.²⁵ However, MoJ’s *Criminal Justice System Statistics December 2018* publication for adults sentenced for supply and possession with intent to supply a class A or class B drug (which are covered by the Council’s study) and production of a class A or class B drug, the overall custody rate for these offences was lower for White offenders than for all of the minority ethnic groups.²⁶

As mentioned earlier, the analysis drawn on as part of the Lammy Review showed that minority ethnic offenders sentenced for drug offences in the Crown Court in 2015 had considerably higher odds of receiving an immediate custodial sentence than White offenders. This analysis controlled for the sex and age of the offender, whether they had pleaded guilty, the number of previous cautions and convictions and the number of previous custodial sentences that the offender had received.

While these previous analyses took into account the information available within the data, none of them were able to control for some of the most important details of the offences, such as the culpability of the offender or the harm caused by the offence, as most sentencing data does not include details of these types of factors taken into account by the judge.

However, from October 2010 to the end of March 2015, the Sentencing Council collected detailed sentencing data from the Crown Court and has been able to use this to conduct a new piece of analysis. The Crown Court Sentencing Survey (CCSS)²⁷ was a paper-based survey completed by the sentencing judge passing sentence in the Crown Court, and collected information on the factors taken into account by the judge in working out the appropriate sentence for an offender and the final sentence given. This information included the judge’s assessment of the culpability of the offender, the harm caused by the offence, any aggravating or mitigating factors and information on guilty pleas. Judges were asked to complete a form for an offender’s principal offence, every time they sentenced an offender. See the Methodology section for more details.

Using a period of CCSS data when the *Drug Offences* guideline was in force, the Council has been able to construct two types of statistical model that control for many (but not all) of the factors taken into account by sentencers, and has as far as possible isolated the effects of the offender’s sex and ethnicity to understand the relationship that those characteristics have with the sentence outcome. As it is not possible to discount completely the influence of any factors that have not been included in the analysis, the results of this analysis should not be regarded as conclusive.

²⁵ In 2018, the custody rates were: White offenders – 33 per cent, Black offenders – 35 per cent, Asian offenders – 37 per cent, Mixed offenders – 34 per cent, Chinese or Other offenders – 37 per cent. The average custodial sentence lengths (ACSLs) for indictable offences were: White offenders – 18.3 months, Black offenders – 28.0 months, Asian offenders – 29.1 months, Mixed offenders – 22.2 months, Chinese or Other offenders - 23.3 months. See *Race and the Criminal Justice System 2018* (linked above), page 33 of the main report for custody rates (and table 5.15 in the accompanying data tables), and the summary on page 4 for the ACSL figures.

²⁶ See the Outcomes by Offence data tool, published as part of the *Criminal Justice System Statistics December 2018* publication: <https://www.gov.uk/government/statistics/criminal-justice-system-statistics-quarterly-december-2018>.

²⁷ More information about the Crown Court Sentencing Survey, including published data, examples of the forms completed by judges and summaries of findings can be seen here: <https://www.sentencingcouncil.org.uk/analysis-and-research/crown-court-sentencing-survey/>

Methodology

The CCSS data

The analysis uses data from April 2012 to the end of March 2015; the period for when the *Drug Offences* guideline was in force. The survey achieved an approximate response rate of 60 per cent. It is not possible definitively to tell whether the CCSS data are representative of all offenders, as the detailed information on sentencing factors is not available in any other source for comparison. However, when comparing the spread of offence groups and sentencing outcomes between the Court Proceedings Database (CPD) and the CCSS, only minor discrepancies were found so it is assumed that the data are broadly representative of sentencing practice across all offenders.²⁸

Data from the CCSS were collected on a principal offence basis. This means that when a defendant has been found guilty of two or more offences, data were collected for the offence for which the heaviest penalty was imposed. Where the same disposal was imposed for two or more offences, the offence selected was the offence for which the statutory maximum penalty was the most severe. Although offenders receive a sentence for each of the offences that they are convicted of, it is only the sentence for the principal offence that was recorded on the form, and so this analysis focuses on sentencing practice for principal offences only.

The ethnicity data

While the CCSS collected information on the factors taken into account by the sentencer, details of the sentence imposed and the offender's date of birth, it did not include any information on the offender's ethnicity. However, as the court case identifier was collected on the CCSS forms, it has been possible to use this identifier (along with other variables such as the sentence date and the offender's name and date of birth) to link the CCSS data to data from the CPD, thereby merging the two sources, and incorporating the offender's ethnicity.²⁹ This linking also allowed some of the information collected on the CCSS forms to be verified (for example, the specific offence for which the offender was sentenced and the final sentence imposed).

The CPD ethnicity variable that the Council has access to is police officer-identified, whereby the offender's ethnicity is recorded by a police officer or a member of the administrative or clerical team, based on the visual appearance of the offender. The Council recognises that this is an imperfect way of ascertaining someone's ethnicity.

The ethnicity information was only available for the broad categories of White, Black, Asian and Other ethnicities. The table below shows how the more detailed Census categorisations are grouped within this data, including how offenders of Mixed ethnicity are split amongst the different groups.

²⁸ More information on comparisons between the CPD and CCSS can be found in the Quality and Methodology note, published alongside the CCSS results: <https://www.sentencingcouncil.org.uk/wp-content/uploads/CCSS-Annex-B1.pdf>

²⁹ For more information on this and other ethnicity variables, see Appendix I: Ethnicity Classifications (starting on page 64) in the Race and the Criminal Justice System 2018 publication: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/848966/statistics-on-race-and-the-cjs-2018.pdf

Table 1: Mapping of ethnicity categorisations

4 point classification (used in the analysis)	2011 Census categorisation
White	White – British White – Irish White – Gypsy or Irish traveller White – Other
Black	Black – African Black – Caribbean Black – Other Mixed – White and Black African Mixed – White and Black Caribbean
Asian	Asian – Bangladeshi Asian – Indian Asian – Pakistani Asian – Other Mixed – White and Asian
Other	Chinese ³⁰ Other Mixed – Any other mixed background
Not stated	Not stated

The gender of the offender was recorded on the CCSS forms, but this contained some missing data. Therefore, the CPD data on the sex of the offender, which was complete for all records, was matched onto the CCSS data, and this CPD data were used for this analysis instead.

Terminology

The words ‘sex’ and ‘ethnicity’ are used throughout this report, instead of ‘gender’ and ‘race’ in order to be consistent with how the Ministry of Justice captures and reports this data. As explained above, the data on sex and ethnicity were matched from the CPD onto the CCSS data and it was these CPD variables that were used for this analysis.

In the Introduction of the *Statistics on Women and the Criminal Justice System 2017* publication, it is explained that ‘...we refer to sex rather than gender, because the binary classification better reflects how individuals are generally reported or managed through the CJS. For example, prisons are either male or female institutions, with prisoners normally placed based on their legally recognised gender.’³¹

³⁰ Chinese is listed here as this group is included within ‘Other’ in this analysis, but in practice this group is included in the Asian group in the 2011 Census.

³¹ See *Statistics on Women and the Criminal Justice System 2017*, page 9, for more detail: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759770/women-criminal-justice-system-2017..pdf

The statistical models

Data from the CCSS were used to construct two types of statistical model:

- A multivariate logistic regression model to investigate the association between ethnicity/sex and the likelihood of receiving an immediate custodial sentence; and,
- A linear regression model to investigate the association between ethnicity/sex and the length of immediate custodial sentences received by offenders sentenced to immediate custody.³²

These are widely used and robust methods for investigating relationships between different factors and understanding the association between individual factors and an outcome.

One of the most useful outputs from the first model listed here (the logistic regression) is the odds ratio. For each factor in the models (such as role, remorse, sex and ethnicity) an 'odds ratio' is calculated to quantify the strength of association between the factor and the outcome. For example, for the role of the offender in a drugs offence, the odds ratio shows how large the odds of immediate custody are for those with a leading role compared with those with a significant role, which provides an understanding of the strength of association between the role of the offender and the sentence imposed. The baseline figure for an odds ratio, where there is no difference between the two groups being compared, is 1.00. Therefore, an odds ratio of 1.00 when looking at minority ethnic group offenders vs White offenders, or male offenders vs female offenders (when comparing the odds of receiving an immediate custodial sentence) would suggest that there is no difference between the two groups, and therefore that the analysis suggests that these groups are not sentenced differently based on their ethnicity or sex. An odds ratio that is above or below 1.00 may suggest that there is a difference between the groups,³³ and the higher the number above 1.00, or the lower the number below 1.00, the stronger the association.

However, the concepts of 'odds' and 'odds ratios' can be difficult to picture, and do not have the same real-world meaning as probabilities. Probabilities are easier to comprehend, because they can be described in terms of one group being 'X times as likely' as another group to get a particular outcome, or 'X per cent more likely'. Therefore, some examples of specific probabilities are given within the results to illustrate the findings, by comparing the probability of a White offender receiving an immediate custodial sentence with the probability for each minority ethnic group (and the same for males compared with females). The most common factors found in the data (known as the 'reference offender') were used to choose the examples.

The offences chosen for the analysis

Although the CCSS collected data for all of the drug offences covered by the Council's definitive guideline, it was determined that focusing on offences of supply, possession with intent to supply and conspiracy to supply a controlled drug would lead to the most robust findings. The reasons for this are as follows:

³² The custody length was log-transformed for this model.

³³ It would be concluded that there may be a difference between the two groups being compared if the odds ratio is statistically significantly different from 1.00. A difference would be judged to be 'statistically significant' if the confidence interval around the odds ratio estimate does not include 1.00. Confidence intervals are explained in further detail later.

- These are the highest volume drug offences collected through the CCSS, therefore providing a large dataset on which to conduct the analysis.
- These offences are all included within the same sentencing guideline. Each Sentencing Council guideline provides sentencers with a structure for how they should sentence a particular offence or set of offences, and each separate guideline is different: they each include different factors for sentencers to take into account, and have different sentence starting points and ranges. This analysis includes offences that are all covered by one guideline, and so sentencers should have used the same process and taken into account the same types of factor when sentencing. If other offences had been included, such as importation offences (which are generally considered more serious and therefore attract higher sentences) or possession offences (for which the factors stated in the guideline to be considered by the judge are quite different), then the findings may be distorted by the differences in the nature of the offences and the way that sentencers go through the sentencing process.
- The majority of offenders sentenced for these offences are sentenced at the Crown Court, so the data represent the court type where most offenders are sentenced.

Offences related to controlled drugs of classes A and B were included in the analysis, but offences related to class C drugs were excluded, as these are very low volume.

Only adults were included in the analysis, as the CCSS only collected information on adult offenders (aged 18 or over) and the guideline only applies to adult offenders.

The variables/factors chosen for the analysis

The variables included in the models were:

- Offence: the data were split into supply and conspiracy to supply (grouped together) and possession with intent to supply.
- Drug class: the data were split into classes A and B.
- Level of culpability: for these types of drug offences, culpability is represented in the guideline by the role of the offender: leading role, significant role and lesser role, as defined in the guideline.
- Level of harm: for these types of drug offences, harm in the guideline predominantly relates to the quantity of the drug, where level 1 is a high quantity and level 4 is a low quantity. Offending that relates to street dealing is usually not sentenced on the basis of quantity, and is usually placed at level 3. See the guideline for more details.³⁴
- Previous convictions: sentencers were asked to indicate whether they took into account any recent or relevant previous convictions, and if so, how many (1 to 3, 4 to 9, or 10 or more).
- Aggravating or mitigating factors (for example, high purity of the drug, or where the offender showed remorse): the factors included in the models differed for the two different models. This is described in more detail below.
- Guilty plea: sentencers indicated whether the offender pleaded guilty, and if so, if they pleaded guilty at the first reasonable opportunity.
- Age group: the ages of the offenders were grouped into 18 to 21, 22 to 25, 26 to 50, and 51 and over, due to the way that younger and older offenders are expected to be sentenced differently in some cases to those aged in between.

³⁴ <https://www.sentencingcouncil.org.uk/offences/crown-court/item/supplying-or-offering-to-supply-a-controlled-drug/>

- Sex: all offenders in the data were either defined as male or female.
- Ethnicity: officer-identified ethnicity is comprised of White, Black, Asian and Other ethnicity offenders. Those with unknown ethnicity were excluded from the analysis.

Where the level of culpability, level of harm, previous convictions or guilty plea information were unknown, these cases were categorised as ‘unknown’ within the relevant variable.³⁵

A large number of aggravating and mitigating factors were listed on the CCSS forms, and judges had the opportunity to write additional factors that they took into account in free-text boxes provided on the forms. Including a large number of factors in this type of analysis is not advised, particularly as many of them are only indicated on a very small number of forms, and including too many factors can affect the robustness of the analysis. This means that a smaller number needed to be chosen. It was decided that factors indicated on five per cent or more of the forms for each type of model would be included in the analysis, as this would ensure that a sufficient number of data points would be available for each variable while maintaining the reliability and quality of the models by restricting the number of variables to be included.

For the first model, investigating the association between sex and ethnicity and the likelihood of immediate custody, the following aggravating and mitigating factors were chosen:

- Two aggravating factors: ‘High purity’, and ‘Level of profit element’;³⁶
- Nine mitigating factors: ‘Remorse’, ‘Offender addicted to same drug’, ‘Good character/exemplary conduct’, ‘Determination/demonstration to address addiction/behaviour’, ‘Lack of sophistication as to nature of concealment’,³⁷ ‘Isolated incident’, ‘Involvement due to pressure/intimidation/coercion’, ‘Age/lack of maturity affecting responsibility’, and, ‘Offender’s vulnerability exploited’; and,
- One additional mitigating factor: ‘Sole/primary carer for dependent relatives’ (this was chosen for inclusion in the model despite being indicated in slightly less than five per cent of cases, because this is often raised as a relevant factor in discussions of sex, and so it was thought to be of interest to include this).

For the second model, investigating the association between sex and ethnicity and the lengths of immediate custodial sentences, the five per cent threshold was met by a slightly different set of factors, as the dataset was a subset of the offenders from the first model (only those sentenced to immediate custody). The factors chosen were broadly the same as those listed above, except for the following differences:

- Addition of ‘Failure to comply with current court orders’ and ‘Nature of likely supply’; and,
- Removal of ‘Offender’s vulnerability exploited’.

There are many ways that the factors could have been chosen, and the method could have affected the findings. However, once the analysis was conducted, various tests were carried out to test the sensitivity and robustness of the models, and it was found that

³⁵ The proportions of cases that were unknown, for each of these variables, were: culpability (role) – 17 per cent, harm – 17 per cent, previous convictions – 2 per cent, guilty plea – 12 per cent.

³⁶ This aggravating factor does not appear in the sentencing guideline for these offences, but as it was included on the Drug Offences CCSS form, which collected information for all drug offences, it was possible for sentencers to tick this factor.

³⁷ This mitigating factor does not appear in the sentencing guideline for these offences, but as it was included on the Drug Offences CCSS form, which collected information for all drug offences, it was possible for sentencers to tick this factor.

although including a lot more variables³⁸ reduced the robustness of the models, the exact factors chosen did not substantially change the findings for sex or ethnicity in either of the models.

Examples of factors collected as part of the CCSS but not incorporated in the models as they were indicated on less than five per cent of the forms, include the aggravating factors of 'Attempt to conceal/dispose of evidence', 'Presence of weapon' and 'On licence', and the mitigating factors of 'Low purity', 'Serious medical conditions' and 'Mental disorder/learning disability'.³⁹

Information on the sentence date (such as the year or month) and the location of the court were not included, as a large number of factors had already been included in the models, and splitting the data any further may have affected the quality of the models.

Findings

Statistical findings

Model 1: investigating the association between an offender's sex and ethnicity and the likelihood of receiving an immediate custodial sentence

Overview of the model

Approximately 14,000 offenders were included in this analysis, of whom around 61 per cent received an immediate custodial sentence and the rest received a different sentence (29 per cent received a suspended sentence order, nine per cent received a community order, and less than one per cent received a fine, a discharge or another sentence).

This analysis investigated the likelihood of receiving an immediate custodial sentence, and so the results are presented as showing that a factor was either associated with higher or lower odds of receiving an immediate custodial sentence (vs a less severe sentence).

General findings

Generally, the findings of this model were as would be expected. Most guideline factors were found to be associated with statistically significantly higher or lower odds of immediate custody, and those that were statistically significant had an effect in the expected direction: offenders with more significant roles, whose offending had resulted in higher harm levels, who had more previous convictions or later/no guilty pleas were associated with higher odds of immediate custody; aggravating factors were associated with higher odds, and mitigating factors were associated with lower odds.

The guideline is structured so that sentencers first consider the level of culpability of the offender and the level of harm caused by the offence, and then use this to determine the offence category. This is referred to as Step 1 in the guideline. Step 2 involves using the

³⁸ Models were tested where all factors that had been ticked on at least 100 forms were included. This was a much lower threshold than the requirement of factors being ticked on a minimum of five per cent of forms (the threshold used in the main models), and so resulted in a much larger number of factors being included in the models. However, although the robustness of the models was reduced, the findings for the association between an offender's ethnicity and sex and the sentencing outcome were very similar.

³⁹ The CCSS form used to collect the data, including the full list of factors, can be viewed here: https://www.sentencingcouncil.org.uk/wp-content/uploads/Drug_Offences_-_April_2014.pdf

offence category together with the class of the drug to determine the appropriate sentence starting point and then adjusting this based on any aggravating or mitigating factors. Following this, there are a number of other steps, including reduction in sentence for a guilty plea. This means that the three dimensions that determine the sentence starting point and therefore that should have the greatest influence on the sentence are the level of culpability, level of harm and the class of drug. The analysis found that, as expected, these three dimensions had the strongest association with the likelihood of immediate custody.⁴⁰

Although the majority of the aggravating and mitigating factors included in the models were found to have a statistically significant association with the outcome, two mitigating factors were found not to. 'Involvement due to pressure/intimidation/coercion' was found not to have statistically significant lower odds of immediate custody. However, in the guideline it is stated that this should only be taken into account where not already taken into account at Step 1, where it may have been accounted for as part of the role of the offender (a lesser role can include this factor). It may be that sentencers have ticked this factor on the forms but have not applied any additional mitigation for it in some cases. The factor 'Age/lack of maturity affecting responsibility' was also not found to have a statistically significant association with the sentence outcome. However, the age group of the offender (18 to 21, 22 to 25, 26 to 50, and 51 and over) had already been taken into account separately, and so this factor did not on average have an effect over and above the age group of the offender.⁴¹

Looking specifically at the age groups of offenders, it was found that offenders aged 18 to 21, 22 to 25 and 51 or over were statistically significantly less likely to receive an immediate custodial sentence than those aged 26 to 50.

Findings for sex and ethnicity⁴²

Using this model, it was found that both the offender's sex and ethnicity were associated with a statistically significant change to the odds of immediate custody, even after controlling for all the other factors in the model:

- Holding all other included factors constant, the odds of a male offender receiving an immediate custodial sentence were found to be 2.4 times as large as the odds (or 140 per cent higher than the odds) for a female offender.

⁴⁰ The odds of receiving an immediate custodial sentence when sentenced for a class A supply-related drug offence were found to be 23 times as large as the odds for a class B drug. The odds of receiving an immediate custodial sentence for an offender found to have a leading role were 4 times as large as the odds for an offender who had a significant role, and 14 times as large as an offender who had a lesser role. The odds of receiving an immediate custodial sentence for an offender placed in harm level 1 were 83 times as large as the odds for an offender placed in harm level 3, and the odds for an offender placed in harm level 2 were 5 times as large as for an offender placed in harm level 3. For those offenders placed in harm level 4, the odds were 1/5 the size of the odds for an offender placed in harm level 3 (which can also be interpreted as: the odds of an offender placed in harm level 3 were 5 times as large as the odds of an offender placed in harm level 4).

⁴¹ However, where the Council has conducted assessments of the impacts of some of its guidelines and where the offender's age was not included as a separate factor, this factor was found to have a statistically significant impact on sentencing: for domestic burglary it was associated with a decrease to sentencing severity; for rape and rape of a child under 13 it was associated with a decrease to sentence severity; for fraud bribery and money laundering (all offences grouped together) it was associated with a decrease in the probability of receiving a more severe type of sentence; and for street or less sophisticated commercial robbery it was associated with a decrease to immediate custodial sentence lengths.

⁴² Sex and ethnicity were studied separately for this analysis – an intersectional analysis looking at the combination of the two was not conducted.

- Holding all other included factors constant, the odds of an Asian or Other ethnicity offender receiving an immediate custodial sentence were each found to be 1.5 times as large as the odds (or 50 per cent higher than the odds) for White offenders, and the odds of a Black offender receiving an immediate custodial sentence were found to be 1.4 times as large as the odds (or around 40 per cent higher than the odds) for a White offender.

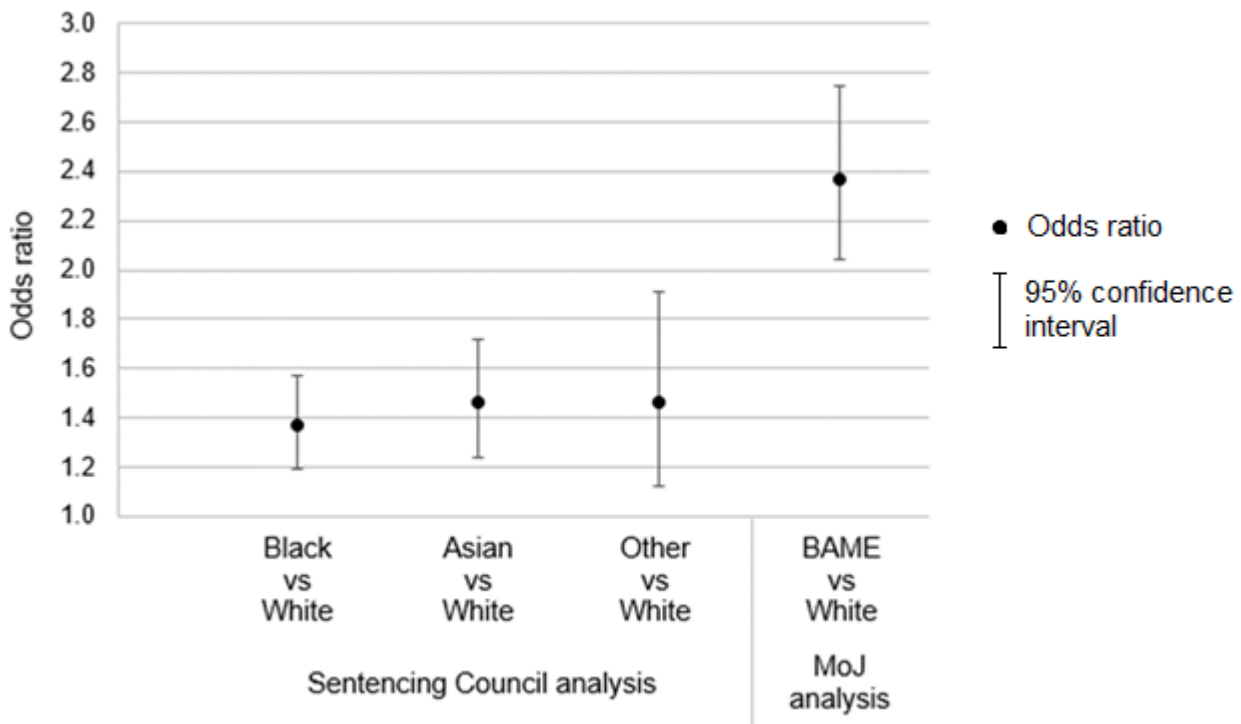
If there was no difference between the groups, the odds ratios presented above would be expected to be 1.0. A number slightly above or below 1.0, and which is calculated to be statistically significant, means that there is a small but significant difference in the way that these offenders are sentenced, and this analysis suggests that Black, Asian and Other offenders are at least slightly more likely to receive an immediate custodial sentence than White offenders. However, as explained earlier, the analysis does not include all factors taken into account by the judge, and so these findings should not be regarded as conclusive.

As explained earlier, the Ministry of Justice analysis showed that the odds of imprisonment for minority ethnic group offenders were 2.4 times as large as the odds (or 140 per cent higher than the odds) for White offenders, which is a much more substantial difference than that found in this new analysis. This suggests that by taking into account the additional factors and circumstances of the offence, the difference is less stark.

For sex, the difference observed is more substantial, even after controlling for the factors taken into account by the judge: males are considerably more likely than females to receive an immediate custodial sentence.

The following chart shows how the results of this new analysis, which controls for the most important factors taken into account by the sentencer, compared with the original MoJ findings, where it was not possible to control for most of these factors.

Figure 1: The association between an offender’s ethnicity and the odds of receiving an immediate custodial sentence, Sentencing Council analysis findings vs MoJ analysis findings⁴³



This illustrates that:

- The findings of the new study suggest a smaller disparity than that found in the MoJ analysis; but,
- A disparity still exists for Black, Asian and Other offenders when compared with White offenders.

As explained in the Methodology section, the odds ratios presented above are a useful output of statistical models of this kind, because they can demonstrate the relative strength of association of one factor compared with another, and are widely used by statisticians. However, the concepts of ‘odds’ and ‘odds ratios’ can be difficult to picture, and do not have the same real-world meaning as probabilities. Probabilities are easier to comprehend, because they can be described in terms of one group being ‘X times as likely’ as another group to get a particular outcome, or ‘X per cent more likely’. Therefore, some examples of specific probabilities are given below to illustrate the findings in a clearer way. The probability of a male offender receiving an immediate custodial sentence is compared with the probability for a female (and similar comparisons are then made for White with Black, Asian and Other ethnicity offenders).

⁴³ Confidence intervals are a way of representing uncertainty around statistical estimates, and a 95 per cent confidence interval is the standard method used in most statistical analyses of this type. A 95 per cent confidence interval indicates that 95 out of 100 samples from the same population will produce confidence intervals that contain the true population value. In this example, data are not available for all offenders sentenced, and so the analysis is based on a sample. The confidence interval shows the range of values that the actual odds ratio is expected to fall between, but as data for the entire population of offenders was not available, there is a small chance that the actual odds ratio falls outside of this range of values.

Specific examples of probabilities

To more clearly explain the findings in real-world terms, the most common factors found in the data (known as the ‘reference offender’) were used to demonstrate specific examples of the different probabilities of immediate custody for male and female offenders.⁴⁴

Table 2: Predicted probability of receiving an immediate custodial sentence, for the most common set of factors in the data, for class A and class B drugs, by sex

Sex of offender	Probability of immediate custody	
	Class A drug	Class B drug
Male	93%	37%
Female	85%	20%

This means that if 100 offenders of each sex were sentenced for possession with intent to supply a class B drug, and had the most common factors in the data taken into account by the judge, then around 37 male offenders and 20 female offenders would be expected to be sentenced to immediate custody (around 17 more males than females).

For the same offence but with a class A drug, and again assuming that the most common factors in the data were taken into account, if 100 offenders were sentenced for this offence, around 93 male offenders and 85 female offenders would be expected to be sentenced to immediate custody (around eight more males than females).

The same approach was used to compare probabilities for White offenders with Black, Asian and Other ethnicity offenders.⁴⁵

⁴⁴ The characteristics and factors were: a White offender, aged 26 to 50, sentenced for possession with intent to supply a drug (class A and class B are presented separately), who was categorised as having a significant role and placed in harm level 3, with no aggravating or mitigating factors, and who pleaded guilty at the first opportunity.

⁴⁵ The characteristics and factors were: a male offender, aged 26 to 50, sentenced for possession with intent to supply a drug (class A and class B are presented separately), who was categorised as having a significant role and placed in harm level 3, with no aggravating or mitigating factors, and who pleaded guilty at the first opportunity.

Table 3: Predicted probability of receiving an immediate custodial sentence, for the most common set of characteristics and factors in the data, for class A and class B drugs, by ethnicity

Ethnicity of offender	Probability of immediate custody	
	Class A drug	Class B drug
White	93%	37%
Black	95%	44%
Asian	95%	46%
Other ⁴⁶	-	46%

This means that if 100 offenders from each of these ethnic groups were sentenced for possession with intent to supply a class B drug, and had the most common factors in the data taken into account by the judge, then around 37 White offenders, around 46 Asian offenders, around 46 Other ethnicity offenders and around 44 Black offenders would be expected to be sentenced to immediate custody. This means that around nine more of the offenders in each of the Asian and Other ethnicity groups and around seven more of the offenders in the Black group would be expected to be sentenced to immediate custody than in the White group.

Similar figures can be compared for the same offence but with a class A drug, and again assuming that the most common factors in the data were taken into account. If 100 offenders from each ethnic group were sentenced for this offence then around 93 White offenders, 95 Asian offenders and 95 Black offenders would be expected to be sentenced to immediate custody. This means that around two more offenders would be expected to be sentenced to immediate custody in each of the Asian group and the Black group than in the White group.

These probabilities, both for the comparisons across the different sexes and the different ethnicities, would differ according to the specific factors of the offender and the offence. However, those given above are indicative as they are the most commonly observed in the CCSS data. The probabilities only take account of the factors included in the data, and may therefore vary by other factors not included.

Model 2: investigating the association between an offender's sex and ethnicity and the length of immediate custodial sentence imposed

Overview of the model

Approximately 8,500 offenders were included in this analysis, as this used a subset of the previous data, now focusing only on those who received an immediate custodial sentence.

⁴⁶ 'Other' ethnicity offenders for class A drug offences were too low volume to produce a comparable probability.

The average (mean) sentence length for these offences overall was 3 years and 1 month.⁴⁷

This analysis investigated the association between an offender's sex and ethnicity and the length of immediate custodial sentence. The results show whether each factor was associated with an increased or decreased length of immediate custodial sentence, or whether there was no association.

General findings

The findings of the model, similar to the earlier model, were generally as would be expected. Most of the guideline factors were found to have a statistically significant association with custodial sentence lengths, and those that were statistically significant had the expected effect: offenders with more significant roles, whose offending had resulted in higher harm levels, who had more previous convictions or later/no guilty pleas had longer custodial sentences; aggravating factors were associated with increased custodial sentence lengths, and mitigating factors were associated with reduced sentence lengths. Additionally, in the same way as for the other model, the level of harm, the role of the offender and the class of the drug had by far the strongest association, and again this is expected because these are the three dimensions of the offence that determine the sentence starting point within the guideline.⁴⁸

The majority of the aggravating and mitigating factors included in the models were associated with a statistically significant increase/decrease to the custodial sentence length, but one aggravating and three mitigating factors were not: 'Failure to comply with current court orders', 'Good character/exemplary conduct', 'Involvement due to pressure/intimidation/coercion' and 'Age/lack of maturity affecting responsibility'. The final two of these factors also did not have a statistically significant association with the likelihood of immediate custody (in the earlier model), and possible explanations for this lack of significance were given earlier. For 'Failure to comply with current court orders' and 'Good character/exemplary conduct', it is less clear why these did not have a significant association with increased/decreased custodial sentence lengths. However, exploring this further is outside the scope of this study.

Within the model, it was found that offenders aged 18 to 21 and 22 to 25 had statistically significantly shorter custodial sentence lengths than those aged 26 to 50, but those aged 51 or over had statistically significantly longer sentences than those aged 26 to 50.

It was also found that previous convictions were associated with increased custodial sentence lengths, but the number of previous convictions (1 to 3, 4 to 9, or 10 or more) did not have a statistically significant effect.

⁴⁷ After any reduction for guilty plea.

⁴⁸ The average length of custodial sentence for offenders sentenced for a class A offence were found to be around 198 per cent longer than sentences imposed for class B offences. The average length of custodial sentence for offenders in a leading role was found to be around 43 per cent longer than sentences imposed for offenders in a significant role and around 95 per cent longer than offenders in a lesser role. The length of custodial sentence for offenders placed in harm level 1 were found to be around 117 per cent longer than those placed in harm level 3, and the length for those placed in harm level 2 was found to be around 54 per cent longer than for those placed in harm level 3. For those placed in harm level 4, the length was found to be around 34 per cent shorter than for those placed in harm level 3.

Findings for sex and ethnicity

When looking at the sex of the offender, male offenders were found to have statistically significantly longer custodial sentences than females – around 14 per cent longer on average, equating to around five additional months in sentence length.

The findings for ethnicity varied according to the ethnicity of the offender:

- Asian offenders had statistically significantly longer sentences than White offenders - around 4 per cent longer on average, equating to around one additional month in sentence length; but,
- Black and Other offenders did not have statistically significantly different custodial sentence lengths to White offenders.

Therefore, a small but significant difference in custodial sentences was observed for Asian offenders when compared with White offenders, but no difference was observed for Black or Other offenders (when compared with White offenders).

Conclusion and next steps

This analysis investigated the extent to which an offender's sex and ethnicity are associated with the sentence imposed at the Crown Court for drug supply-related offences. The findings suggest that, after controlling for many, but not all, of the main factors that sentencers are required to take into account when sentencing, an offender's sex, and to a lesser extent, their ethnicity, were associated with different sentencing outcomes for these offences at the Crown Court.

The analysis suggests that, after controlling for the factors included in the analysis, males were more likely to receive immediate custodial sentences than females, and the custodial sentences they received were on average longer than the sentences imposed on females.

Additionally, Black, Asian and Other ethnicity offenders were all more likely to receive immediate custodial sentences than White offenders, and Asian offenders received longer custodial sentences than White offenders. No differences in sentence lengths were observed when comparing Black and Other ethnicity offenders to White offenders.

However, for all analyses in this study, not all factors considered by the judge could be included, so it is not possible to discount completely the influence of any factors not included in the analysis. Therefore, the results of this analysis should not be regarded as conclusive.

The Council has considered this analysis and has outlined in the accompanying *Drug Offences: Consultation* some actions that the Council intends to take as a result of the findings.

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