

# Children involved with child welfare services and the likelihood of a custodial sentence

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This Data Insight summarises findings from working with the Ministry of Justice & Department for Education linked dataset - England. Using data from the National Pupil Database and the Police National Computer, the research analyses the likelihood of receiving a custodial sentence by 2020 for children who were referred to or received an intervention from child welfare services from ages 5-18. The data was made available through the Ministry of Justice Data First initiative funded by ADR UK.

## Background

This project describes whether there were differences in the likelihood of receiving a custodial sentence for individuals who as children, were referred to or received an intervention from child welfare services in England.

The role of child welfare services in England is to safeguard the health and development of children, with several possible actions taken by social work teams following a referral based on the level of need and assessed risk to the child. These include:

- taking **no further action** (possibly following an assessment)
- the child becomes a **child in need**
- the child is placed on a **child protection plan**
- the child is placed in an out of home placement: **child looked after**<sup>(1,2)</sup>.

Compared to the general population, children who are referred to or receive an intervention from child welfare services are more likely to be from deprived or low-income households. They are also known to have worse outcomes in education, such as lower school attendance, a higher

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likelihood of being excluded, and worse GCSE performance<sup>(3-6)</sup>. Less is known about criminal justice system outcomes for children with a child welfare referral or intervention in childhood. In England it was previously understood that those who had been a child looked after were overrepresented in the criminal justice system<sup>(7,8)</sup>. Similar evidence from Australia and the USA shows that there is a stepped increase in likelihood of offending as the level of child welfare service involvement increases. This means that risk of offending was greater for those referred relative to the general population, for those who were child in need relative to those referred, and so on, with the greatest risk of offending experienced by those who were child looked after<sup>(9,10)</sup>.

Findings from research funded by ADR UK demonstrate the same patterns for children in England. This research shows that the likelihood of having any caution or conviction by early adulthood increases with the level of child welfare service intervention, from 2-4 times higher than those without any welfare involvement<sup>(11)</sup>.

## What we did

The methodology was designed to estimate the odds of receiving a custodial sentence by the year 2020 using a [regression model](#) on the linked dataset. A sample of 1,708,570 children born between 1 September 1995 and 31 August 1998 was selected; by the year 2020 the children were aged 22-25 years.

Child welfare service involvement was derived from the Children in Need and Children Looked After datasets, with the highest level of child welfare involvement used in each case. This ranged from no involvement, referral only, child in need, child protection plan, to child looked after (for more details on the child welfare data please see<sup>(12)</sup>). The data covers any welfare involvement from age 5-18 years, meaning that data for children from birth to 5 years is missing from this sample. Any children who had child welfare service involvement during this period (aged 0-5 years) but then did not have further involvement beyond 5-years will be classified as having *no child welfare involvement*. Furthermore, as only the most recent care episode is available for each reporting year, some cases of child protection plan or child looked after may have been missed, which has the potential to misclassify at a lower social care intervention level.

A binary (yes/no) measure of whether the individual had ever had a custodial sentence was derived from the Police National Computer dataset<sup>(13,14)</sup>.

Variables known to increase or decrease the likelihood of child welfare service involvement and also likelihood of criminal justice system contact were included in the regression models. These measures were taken from the school census (free school meal eligibility, major ethnic categories, gender, special educational need provision), exclusions (fixed term exclusions), key stage 4 (GCSE Maths and English grade A-C) and attendance (proportion of missed sessions in secondary school) datasets<sup>(15-19)</sup>.

The local authority, identified through the school census data based on the child's home postcode at age 16 years (school year 11) was also entered into the regression model, as child welfare services and education are overseen by local authorities and may differ between areas.

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## What we found

### **Custodial sentences occur more often when individuals have had a child welfare service referral or intervention**

Custodial sentences are a rare criminal justice system outcome, especially for girls and women. Table 1 below shows the rounded counts and percentages of individuals within the whole population, and for females and males separately, who had any criminal caution and conviction and those who had one or more a custodial sentence. The values are also shown for each level of child welfare service involvement.

The table shows that:

- Boys are more likely to offend than girls regardless of child welfare involvement status.
- Custodial sentences are relatively rare but occur more often when individuals have had a child welfare service referral or intervention (compared to the general population).
- Individuals who were child looked after (i.e. had at least one out of home placement in childhood) were the most likely to have a custodial sentence.

The descriptive statistics in Table 1 may lead to a biased understanding of the impact of child welfare service involvement on likelihood of receiving a custodial sentence, as they do not include important other factors that may also explain this association, such as free school meal eligibility and school attendance. The regression models included many of the important other explanatory factors to explain the role of child welfare service involvement on likelihood of receiving at least one custodial sentence by the year 2020.

### **There is a stepped increase in the higher likelihood of receiving a custodial sentence as the level of child welfare service involvement increases**

The unadjusted (does not take into account any other factors) and adjusted (takes in to account relevant other factors) regression models are shown in the Tables below and illustrated in the figures. The column estimates in each case show the odds ratio (likelihood of a custodial sentence) for each level of child welfare service involvement (referral only, child in need, child protection plan, child looked after), in each case compared to the no child welfare service involvement comparison group. The better estimates are from the adjusted models, and they tell us that children who were referred to child welfare service were 1.88 times more likely to receive a custodial sentence than the general population. This increases at each subsequent level of child welfare service involvement, with child in need being 2.29 times more likely, child protection plan 2.19 times more likely, and child looked after 7.33 times more likely.

The tables and figures also show the outcome from separate male and female analyses. Again, the adjusted models are most helpful to refer to. Males show similar increased odds of custodial sentences to the whole population - but with a difference in the odds for the child looked after group of 4.13 times increased odds of a custodial sentence. Whereas, females who had a child welfare service referral or intervention experienced a higher odds for having a custodial sentence than the whole population:

- those referred to child welfare services had a 2.40 increased likelihood
- those who had been a child in need were 3.88 times more likely
- those with a child protection plan were 4.70 times more likely
- those who had been a child looked after were 11.37 times more likely than girls without child welfare involvement.

Table 1. Rates of custodial sentences and all other disposals with or without child welfare service involvement.

Child welfare involvement	Whole Population			Females			Males		
	Any caution or conviction	Non-custodial conviction	Custodial conviction	Any caution or conviction	Non-custodial conviction	Custodial conviction	Any caution or conviction	Non-custodial conviction	Custodial conviction
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
None	1,370,000 (95)	61,360 (4)	7,130 (<1)	683,280 (98)	12,630 (2)	330 (<1)	686,730 (93)	48,730 (7)	6,800 (1)
Referral only	104,620 (84)	17,140 (14)	2,520 (2)	60,350 (91)	5,620 (8)	180 (<1)	44,270 (76)	11,510 (20)	2,340 (4)
Child in need	59,870 (80)	12,680 (17)	2,050 (3)	33,560 (87)	4,820 (12)	220 (1)	26,310 (73)	7,850 (22)	1,830 (5)
Child protection plan	6,930 (75)	2,030 (22)	290 (3)	4,230 (83)	820 (16)	40 (1)	2,700 (65)	1,200 (29)	250 (6)
Child looked after	20,230 (66)	7,790 (25)	2,870 (9)	11,180 (75)	3,420 (23)	310 (2)	9,050 (57)	4,370 (27)	2,560 (16)

**Note.** N = number, % = percentage

### Box 1. Guide to understanding the findings of the regression analysis

Table 2 reports on the findings of the regression analysis. The analysis estimates the effect of child welfare service involvement (versus no involvement) on likelihood of receiving at least one custodial sentence. When looking at the table it may help to consider the following:

- In each case the level of child welfare service involvement e.g., referral only, was compared to the reference category of no child welfare involvement.
- The **odds ratio** is the likelihood of a custodial sentence for individuals with this type of child welfare service involvement compared to individuals without child welfare service involvement. For example, an odds ratio of 2 for individuals who were *child looked after* would suggest that children who were looked after at least once in childhood (age 5-18 years), are twice as likely than those without any child welfare involvement to have a custodial sentence.
- The lower and upper **confidence intervals** are the range of values that the odds ratio is likely to fall within. From the regression analysis we can confidently claim (with 95% certainty) that the odds ratio falls within these upper and lower values.

If the lower and upper **confidence intervals crosses zero**, for example -1.22, 2.21, then the predicted odds ratio is not significant. This means that we do not support the idea that the rate of custodial sentences in the child welfare group is different from the rate in the no child welfare involvement group.

The regression findings show that even when other important factors are accounted for, there is a stepped increase in the likelihood of receiving at least one custodial sentence by age 22-25. This ranges from **2-4 times greater likelihood as the level of child welfare service involvement increases** (and when compared to those without any child welfare intervention). The role of child welfare service involvement increased the odds for females of receiving at least one custodial sentence more greatly than males, with **females experiencing 2-11 times greater odds** compared to the non-child welfare female population.

**Table 2.** Odds of receiving a custodial sentence for children with welfare service involvement.

Note: OR = Odds Ratio; SE = Standard Error ; LCI = Lower confidence interval, UCI = Upper confidence interval.

Child welfare involvement	Whole Population			Females			Males		
	OR	SE	LCI, UCI	OR	SE	LCI, UCI	OR	SE	LCI, UCI
Unadjusted Model Intercept	0.00	0.01	0.00, 0.01	0.00	0.05	0.00	0.01	0.01	0.01, 0.01
Referral Only	4.16	0.02	3.98, 4.36	5.80	0.09	4.83	4.54	0.02	4.33, 4.76
Child in need	5.69	0.03	5.41, 5.97	12.21	0.09	10.29	5.80	0.03	5.50, 6.11
Child protection plan	6.57	0.06	5.82, 7.38	17.05	0.17	12.13	6.99	0.07	6.12, 7.94
Child looked after	20.54	0.02	19.64, 21.48	44.21	0.08	37.81	20.64	0.02	19.66, 21.66
Adjusted Model Intercept	0.00	0.00	0.00, 0.00	0.00	0.00	0.00, 0.00	0.00	0.00	0.00, 0.00
Referral Only	1.88	0.05	1.79, 1.98	2.40	0.23	1.99, 2.90	1.86	0.05	1.76, 1.95
Child in need	2.29	0.06	2.17, 2.42	3.88	0.37	3.22, 4.68	2.18	0.06	2.06, 2.31
Child protection plan	2.19	0.13	1.94, 2.46	4.70	0.81	3.36, 6.58	2.00	0.14	1.75, 2.30
Child looked after	7.33	0.20	6.95, 7.73	11.37	1.04	9.50, 13.60	7.06	0.20	6.67, 7.47

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## Why it matters

The data analysis shows an increased risk for children who are referred to or receive an intervention from child welfare services in childhood (aged 5-18 years) to receive at least one custodial sentence by early adulthood. This is the first time that this stepped increase in risk of custody has been demonstrated in England and it provides the best evidence in the world to illustrate this association.

There is substantial evidence that adversity in childhood, in particular maltreatment in the form of neglect and abuse, increases the likelihood of criminal justice system contact and vulnerability to criminalisation<sup>(20-22)</sup>. The findings from this report demonstrate that child welfare services, designed to protect children from harm and uphold their healthy development, do not sufficiently protect them so as to reduce their risk of receiving a custodial sentence (so that it is equal to the general population). In fact, the findings in this report show the highest risk for custody exists in the population who receive the most *intense* welfare intervention of out of home placements (child looked after status). There is global evidence that also demonstrates that out of home placements for children in the care system increases the risk of criminalisation<sup>(23, 24)</sup>.

One very important thing to consider is that children with child welfare system involvement are more likely to have faced challenges and adversity in their early lives. These experiences can impact children in multiple and different ways. The difficulties that children have faced and the way that it has impacted on them is something that the current analysis does not take into account, as these things have not been measured in the available data. The child welfare intervention is directly linked to childhood adversity in that the intervention should be in line with the needs and safety of the child. So when we say that the child welfare system involvement changes the likelihood of something happening, we may also be saying that childhood adversity changes the likelihood too.

Another important finding from this data analysis is that there is higher risk of custody for those who were referred to child welfare services but did not receive any intervention. This is a large group of individuals who may not otherwise be supported by any other service in childhood; this analysis shows they are more likely to experience the most severe criminal justice system outcome than the general population.

Finally, this report demonstrates that there is an elevated risk of receiving at least one custodial sentence for girls and women who are involved with child welfare services. This finding is aligned with other international research that has demonstrated an increased impact of child maltreatment and child welfare service involvement on criminal justice system outcomes for girls relative to boys<sup>(25)</sup>. However, globally there exists a gender gap in offending whereby the overall offending rate is higher in boys and men<sup>(26)</sup>.



## What next?

The data analysis considered individuals with child welfare involvement according to their highest ever level. Another useful way of using the data would be to consider the reason for child welfare involvement, as other evidence has shown that neglect is more highly associated with later criminal offending than other forms of maltreatment (27-29). The children who were child looked after likely had a variety of looked after experiences, including the duration and nature of their placements, although in this analysis they have been grouped together.

There is some research evidence that shows an increased risk arising from independent living or residential placements and criminal offending, relative to other types of placement, such as kinship or foster care (24). Further analysis could look within the child looked after group to assess the impact of different care experiences (within the limitations of the administrative data).

## References

1. DfE. Children looked after in England including adoptions. In: Education Df, editor. 2023.
2. DfE DfE. Characteristics of children in need. In: Education Df, editor. gov.uk2022.
3. Bennett DL, Schlüter DK, Melis G, Bywaters P, Alexiou A, Barr B, et al. Child poverty and children entering care in England, 2015–20: a longitudinal ecological study at the local area level. *The Lancet Public Health*. 2022;7(6):e496-e503.
4. Gilbert R, Widom CS, Browne K, Fergusson D, Webb E, Janson S. Burden and consequences of child maltreatment in high-income countries. *The lancet*. 2009;373(9657):68-81.
5. Malvaso C, Magann M, Ribeiro Santiago PH, Montgomerie A, Delfabbro P, Day A, et al. Early versus late contact with the youth justice system: opportunities for prevention and diversion. *Current Issues in Criminal Justice*. 2024;36(1):16-41.
6. Malvaso C, Montgomerie A, Pilkington RM, Baker E, Lynch JW. Examining the intersection of child protection and public housing: development, health and justice outcomes using linked administrative data. *BMJ Open*. 2022;12(6):e057284.
7. DfE DfE. Education, children's social care and offending: Descriptive Statistics. In: Education Df, editor. 2022.
8. Youth Justice Board Y. Keeping children in care out of trouble: An independent review chaired by Lord Laming. 2015.
9. Cutuli J, Goerge RM, Coulton C, Schretzman M, Crampton D, Charvat BJ, et al. From foster care to juvenile justice: Exploring characteristics of youth in three cities. *Children and youth services review*. 2016;67:84-94.
10. Malvaso CG, Delfabbro PH, Day A, Nobes G. Young People Under Youth Justice Supervision With Varying Child Protection Histories: An Analysis of Group Differences. *International journal of offender therapy and comparative criminology*. 2019;63(2):159-78.
11. Leyland A, Webb C, Hughes N, Bennett M. Child maltreatment and social welfare service involvement is linked to higher rates of criminal cautions and convictions by early adulthood. under review.
12. DfE DfE. Children in need: Methodology. In: Education Df, editor. 2023.
13. ADR UK. Data First: Harnessing the potential of linked administrative data for the justice system no date [Available from: <https://www.adruk.org/our-work/browse-all-projects/data-first-harnessing-the-potential-of-linked-administrative-data-for-the-justice-system-169/>].
14. Ministry of Justice. Ministry of Justice: Data First. 2020.
15. DfE. Children with special educational needs and disabilities (SEND). In: Education Df, editor. 2023.
16. DfE DfE. Free school meals: Autumn term. In: Education Df, editor. GOV.UK2021.

17. DfE DfE. Pupil absence statistics: methodology. In: Education Df, editor. 2023.
18. DfE DfE. Pupil exclusion statistics: methodology. In: Education Df, editor. 2023.
19. DfE DfE. Key stage 4 performance, 2019 (revised): Quality and methodology information. In: Education Df, editor. 2020.
20. Jackson DB, Jindal M, Testa A, Ganson KT, Fix RL, Nagata JM. Adverse childhood experiences and adolescent police contact in the United Kingdom. *Pediatrics*. 2022;150(4):e2021055889.
21. Kim J, Cicchetti D. Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of child psychology and psychiatry*. 2010;51(6):706-16.
22. Moffitt TE. Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*. 1993;100:674-701.
23. Baidawi S, Sheehan R, Flynn C. Criminal exploitation of child protection-involved youth. *Children and Youth Services Review*. 2020;118:105396.
24. Tzoumakis S, Whitten T, Laurens KR, Dean K, Harris F, Carr VJ, et al. Levels of Involvement with Child Protection Services Associated with Early Adolescent Police Contact as a Victim and Person of Interest. *J Interpers Violence*. 2024:8862605231223468.
25. Baidawi S, Papalia N, Featherston R. Gender differences in the maltreatment-youth offending relationship: a scoping review. *Trauma, Violence, & Abuse*. 2023;24(2):1140-56.
26. Durrant R. Evolutionary approaches to understanding crime: explaining the gender gap in offending. *Psychology, Crime & Law*. 2019;25(6):589-608.
27. Baidawi S, Sheehan R. Maltreatment and delinquency: Examining the contexts of offending amongst child protection-involved children. *The British Journal of Social Work*. 2020;50(7):2191-211.
28. Malvaso CG, Delfabbro PH, Day A. Risk factors that influence the maltreatment-offending association: A systematic review of prospective and longitudinal studies. *Aggression and violent behavior*. 2016;31:1-15.
29. Malvaso CG, Delfabbro PH, Day A. The child protection and juvenile justice nexus in Australia: A longitudinal examination of the relationship between maltreatment and offending. *Child Abuse & Neglect*. 2017;64:32-46.

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## About ADR UK

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