

# CRIME AND JUSTICE BULLETIN

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## Offending by young people with disability: A NSW linkage study

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**AIM** To describe rates of offending by young people with disability, and identify factors associated with their first contact with the youth justice system in NSW.

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**METHOD** A birth cohort of young people with disability residing in NSW was identified using State and Commonwealth information on health and disability service contacts from a large linked administrative dataset. Rates of offending were compared for young people with and without disability. Logistic regression analysis was undertaken to examine factors associated with the initial offending contact for young people with disability in the birth cohort. Differences in offence types and court outcomes for young people with disability were compared with young people with no known disability.

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**RESULTS** Despite accounting for only 3.5% of the population, young people with disability comprised 7.7% of all young people who had at least one police caution, youth justice conference or court appearance before the age of 18 and 17.4% of those with at least one youth detention episode. On average, people with disability had their first contact with the NSW criminal justice system at an earlier age, had a higher frequency of contacts, and had a different profile of offence types compared to people without disability. Offenders with disability received diversionary outcomes under the *Young Offenders Act 1997* (NSW) at a similar rate to offenders without disability, but for matters proceeding to court, young people with disability received section 32 and 33 dismissals under the (now repealed) *Mental Health (Forensic Provisions) Act 1990* (NSW) at a much higher rate. For people with disability, factors such as a later age of initial contact with disability-related services, greater remoteness of residence, and frequency of child protection contact were strongly associated with the likelihood of having a police caution, youth justice conference or court appearance before the age of 18.

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**CONCLUSION** People with disability have higher rates of contact with the youth justice system than people without disability and are significantly overrepresented in the youth custody population.

**KEYWORDS**

Disability

Young offenders

Children and young people

Mental health

Diversion

Socioeconomic factors and crime

## INTRODUCTION

It is widely understood that offending is more prevalent amongst young people, and peaks in late adolescence and early adulthood (see for example Farrington, 2018; Hirschi & Gottfredson, 1983; Trimboli, 2019; Weatherburn et al., 2014). Because of this, a large body of research has been concerned with identifying various protective and risk factors affecting the likelihood that a young person will come into contact with the criminal justice system (CJS). What is known from this work is that young people who offend are significantly more likely to have experienced adverse and traumatic events in childhood. A recent systematic review of 124 studies across 13 countries, including Australia, found that young people who have contact with the CJS are over 12 times more likely to have experienced an adverse experience in childhood, including abuse and neglect, domestic violence, parental separation, household substance abuse, and serious illness (Malvaso et al., 2021). While this evidence base provides a strong understanding of the type and correlates of both first time and repeat offending by young people, there has been a notable lack of information regarding people with disability in Australian criminology research to date (Llewellyn, 2017). An improved understanding of the differing needs, backgrounds, and offending context for young people with disability is necessary to inform the development of disability-specific programs and policies to reduce early and persistent contact with the CJS.

### Criminal justice experiences of young people with disability

International studies focusing on the CJS experiences of young people with disability have been largely concerned with identifying the prevalence of different disabilities in custodial populations (for systematic reviews of this evidence, see Borschmann et al., 2020; Morris & Morris, 2006). This work has typically shown that the prevalence of disability in youth custodial populations is significantly higher than in the general population. However, these estimates vary significantly between studies and jurisdictions, ranging from 0-95% for mental disorders, and 2-47% for neurodevelopmental disabilities.<sup>1</sup> Similarly, most Australian studies of disability have focused on the backgrounds and experiences of young people in custody. Perhaps the most robust of this work is a survey of 227 young people in custody in NSW in 2015. Using both self-report measures and clinical assessment tools to identify disability (Justice Health and Forensic Mental Health Network [JHFMHN] & Juvenile Justice NSW [JJ], 2017) this study found that a significant proportion of young people in custody at the time of the survey met the criteria for a psychological disorder (83%). The most common disorders identified were substance use disorder (66%), attention or behavioural disorders (59%), anxiety disorders (24%), and mood disorders (11%). Additionally, the study provided strong evidence that a large proportion of young people in custody have an intellectual disability (17%) or borderline intellectual disability (39%), and that young people tend to underreport the presence and impact of their disability.<sup>2</sup> Extending this work, Indig, Frewen, and Moore (2016) followed up young people surveyed in an earlier wave of the NSW custody survey to examine factors associated with reincarceration within 18 months. The authors found a positive association between identified disabilities<sup>3</sup> and the likelihood of reincarceration, but this difference was not statistically significant.<sup>4</sup>

Few studies have assessed the prevalence of disability at earlier stages of the CJS, or considered the likelihood of a young person with disability experiencing any justice contact. One notable example is a study by Zhang et al. (2011). Focusing on young people who offended in South Carolina and who were born between 1981 and 1988, the authors found that 5% of all offenders were people with disability. They also report that young people with disability were significantly more likely to offend at an earlier age,

<sup>1</sup> Such significant variability in research methods and prevalence estimates prevented Borschmann et al. (2020) from computing reasonable pooled disability prevalence estimates between studies.

<sup>2</sup> When asked about the presence or impact of disability using a structured self-reporting tool, results indicated that only 6% of young people in custody had a potential intellectual disability. This was strongly contradicted by alternative measures of disability in the survey, which suggested significantly higher proportions of intellectual disability in the sample. Specifically, Full Scale IQ measures indicated that 17% of young people in custody had a potential intellectual disability, and that a further 39% fell into a borderline range for intellectual disability. Supporting this, 53% were found to have attended a special class within a mainstream school, or a special school.

<sup>3</sup> Including psychological disorders, attention deficit hyperactivity disorder, and possible intellectual disability.

<sup>4</sup> It is possible that this result was an artefact of poor statistical power resulting from the small sample size used in the study (n=271).

and to reoffend, when compared with a group randomly selected from the youth offender population. Building on these findings, Mendoza et al. (2019) conducted a longitudinal study analysing the offending behaviour of nearly one million seventh grade school students enrolled in Texas between 2000 and 2003. The authors found mixed evidence for an association between disability and youth offending, with students who were identified as having a learning disability or emotional disturbance found to be significantly more likely to experience formal contact with the youth justice system, and those identified as having autism or an intellectual disability found to have a reduced likelihood of contact. More recently in Australia, Dean et al. (2021) examined the type and prevalence of early police contact experienced by nearly 80,000 children who participated in the 2009 Australian Early Development Census. They report that children identified as having an emotional or behavioural problem were overrepresented amongst those who recorded a police contact before the age of 13. Despite comprising 21% of young people surveyed, those identified as having an emotional or behavioural problem accounted for 39% of young people with a police contact before the age of 13, 31% of young people who were victims of a crime reported to police, and 31% of young people who were police witnesses. Similarly high estimates emerge from a recent NSW Bureau of Crime Statistics and Research (BOCSAR) study, which found that around 1 in 4 young people who committed a criminal offence between 2009 and 2018, and nearly half of those who entered youth detention, were a person with disability (Ringland, Boiteux & Poynton, 2022a).

While the reasons for these disproportionate rates of contact and higher risk of reoffending amongst young people with disability are not well understood, two broad and non-competing theories have arisen in academic research (Morris & Morris, 2006; NSW LRC, 1999). The first, the susceptibility hypothesis, suggests that various neurological and intellectual difficulties experienced by people with disability may increase the likelihood that they engage in delinquent and antisocial behaviours. Supporting this, research focusing on people with neurodevelopmental impairment related to cognitive or psychosocial disability suggests that people with disability may experience higher levels of CJS contact in adolescence as a result of greater impulsivity, and deficits in emotional and executive functioning directly related to their disability.<sup>5</sup> Others have maintained that at least some of the disparity in rates of contact stems from the fact that the CJS is ill-equipped to deal with people with disability (also known as the differential treatment hypothesis). For example, it has been suggested that cognitive impairments may be unrecognised or misinterpreted by police (Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability [Royal Commission], 2020a), and that this failure to identify disability may result in a higher likelihood of arrest or detainment, either through not informing defendants of their rights in a comprehensible manner, or unintended persuasion to falsely admit to an offence (NSW LRC, 1999). McCausland and Baldry (2017) also suggest that magistrates who suspect that an offender has a disability may be more inclined to impose a custodial sentence in an attempt to promote both diagnosis and engagement with disability support services that may be otherwise unavailable in the community. Differential treatment similarly arises from formal policies and procedures that are not appropriately adapted to meet the differential needs of people with disability (McCausland & Baldry, 2017). In the NSW CJS context specifically, examples may include the refusal of bail based on the availability of mental health and disability support services in a person's region,<sup>6</sup> or more broadly, the guidance of custodial case management based on the results of generic reoffending risk assessment tools which have not been appropriately validated for use in a disability context (see for example Frize, 2015).

Recognising these differences, formal reviews of CJS policies and procedures have consistently pointed to the need for more comprehensive information regarding the experiences of people with disability with existing diversionary options available in NSW. To date, no studies have examined differences in the use of court diversionary measures for young people with and without disability in NSW, including the extent to which young people are cautioned or referred to a Youth Justice Conference under the *Young Offenders Act 1997* (NSW; YOA),<sup>7</sup> or receive a mental health dismissal<sup>8</sup> under sections 32 and 33 of the (now repealed) *Mental Health (Forensic Provisions) Act 1990* (NSW) (NSW LRC; 2012).

<sup>5</sup> See Hughes et al. (2020) for a systematic review and synthesis of 116 research articles concerning health determinants of adolescent criminalisation.

<sup>6</sup> Interested readers are directed to Baldry et al. (2017) for a detailed expositional discussion of this and similar issues in the NSW context.

<sup>7</sup> Hereafter referred to as YOA diversions.

<sup>8</sup> Subsequently referred to as MHA dismissals.

## Limitations of prior research on young offenders with disability

The lack of research on the interaction of young people with disability with the CJS stems largely from two related factors: (1) there is no clear consensus on what constitutes disability and (2) information on disability is not readily available in administrative datasets.

Disability is a complex phenomenon, broadly described by the World Health Organisation (WHO) as “not just one health problem”, but “an umbrella term, covering impairments, activity limitations, and participation restrictions”, which reflect “the interactions between the features of a person's body and features of the society in which he or she lives” (2011, p1). Given the breadth of possible circumstances which might constitute disability under this framework, the reliable identification of disability has been a contentious subject in research, with limited consensus regarding the appropriateness, scope, or accuracy of previously used methodological approaches. Some studies have favoured a diagnosis-informed medical model of disability, while others have stressed the importance of adopting a social model of disability which (separately to diagnosis) acknowledges the impact of social limitations and restrictions experienced by people with disability. These dichotomous conceptions are similarly encoded in Australian legal definitions of disability, which together provide limited guidance or support in favour of either approach.<sup>9</sup>

The disagreement on definition is compounded by the fact that people with disability are not readily identifiable in many administrative data collections in Australia, including those capturing interaction with the CJS in NSW (Royal Commission, 2020b). The limited availability of data has meant that Australian research has typically used a narrow definition of disability, with studies often having to rely on diagnostic criteria from a single dataset, such as admitted hospitalisation records. In a recent review of methodological approaches to identifying disability using administrative data, 10 of a total 16 Australian studies identified (63%) used a single source of data for the identification of disability, with all but one study<sup>10</sup> (n=15, 94%) primarily utilising medical diagnoses to identify people with disability (Centre for Forensic Behavioural Science [CFBS], 2021). Consistent with a medical model of disability, Australian research to date has been predominantly focused on the identification of cognitive disability, most often people with intellectual disability. Of the 16 Australian studies identified in the CFBS review (2021), 15 (94%) were focused on the identification of cognitive disability, with 13 (81%) focused specifically on the identification of intellectual disability. This is broadly in line with the findings of a recent national audit of disability research in Australia (Llewellyn, 2017).<sup>11</sup>

Reaching beyond the limited scope of health datasets, four of these studies (30%) adopted a broader approach to disability identification, recognising people with disability both through diagnostic health data and their engagement with disability-specific services and supports. While measures of disability type from service-based datasets may be cruder than diagnostic categorisations of disability measured in medical datasets, this approach provides several practical benefits over a purely diagnostic approach to disability identification. Firstly, the utilisation of additional data sources provides an opportunity to identify a more complete cohort of people with disability in the population. For example, Bourke et al. (2018) compared the usefulness of different data sources for the identification of people with intellectual disability in Western Australia and found that limiting the scope of disability identification to the use of hospital morbidity data may lead researchers to undercount the proportion of people with intellectual disability by as much as 81%. Additionally, where disability services contacts have been used in linked data approaches to identify people with disability, they have provided a wider range of information about the impacts of social limitations and restrictions. Despite these benefits, studies with access to disability-specific service datasets have often used incongruent definitions of disability, focused on a specific diagnosed form of disability, or have assessed disability over inconsistent time periods and areas

<sup>9</sup> An overview of disability identification frameworks in the context of population level linked administrative data in Australia are available in the forthcoming appendices of Orr et al. (2022).

<sup>10</sup> Hindmarsh et al. (2020) identifies people with disability as those with special healthcare needs.

<sup>11</sup> This concentration of disability research to topics involving people with cognitive disability is not unique to the Australian research environment, but a wider trend which pervades disability research generally. Of the 13 international studies recognised by CFBS (2021) to have utilised multiple datasets in the process of identifying people with disability, 12 (92%) were focused on the identification of people with cognitive disability, with 11 focused specifically on intellectual disability.

(Llewellyn, 2017). Given this, it is unclear to what extent any differences in the number of people with disability or types of disability identified between studies have been driven by different methodological approaches, or are representative of a population.

### Current study

The current study uses NSW population level information from linked administrative data to describe offending by young people with disability in NSW, and to examine factors associated with their contact with the NSW CJS. The purpose of this bulletin is to answer three questions:

1. What proportion of young people with disability offend? What factors are associated with an increased risk of young people with disability having contact with the CJS as an offender?
2. What types of offences do young people with disability commit? How does this compare with young offenders without disability?
3. Are there any differences in how the CJS responds to young people with disability and those without, in terms of diversion rates and penalties imposed?

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## METHOD

### Data

This study used a novel population level linked administrative dataset prepared as part of the pilot phase of the National Disability Data Asset (NDDA).<sup>12</sup> This dataset contained records for all NSW residents over ten years old who had contact with a set of disability specific services and/or the NSW CJS between 2009 and 2018. Additional data on contact with other government services were also available in the dataset, including information across the domains of health, housing and homelessness, child protection and out-of-home care (OOHC), and social security. The dataset held a total of 2,833,604 records for people with disability service contact and/or contact with the NSW CJS as an offender or victim of crime.<sup>13</sup>

The focus of this study is the cohort of people born in NSW between 1st January 1997 and 31st December 2000, for whom the dataset contains a near full history of offending as a young person.<sup>14</sup> From this birth cohort, there are two groups of interest in the study. The first is the 22,134 people who had contact with the NSW CJS as an offender before age 18 (i.e., the young offender cohort). The second is the cohort of 13,032 people who were in contact with a disability-specific support service between the years 2009 and 2018 (i.e., the disability cohort).<sup>15</sup> As data were not available for the full NSW population, total population proportions rely on estimates compiled from the Australian Bureau of Statistics (ABS, 2021). The total population of the birth cohort was estimated at 367,321 people.

### Identifying people with disability in the linked dataset

This study identifies a specific group of people with disability, that is, those in contact with a set of core disability-specific services before the age of 18. This includes people receiving support and services covered by the National Disability Insurance Scheme (NDIS), the Disability Services National Minimum Dataset (DS NMDS), and the Disability Support Pension (DSP). For this group, further information regarding the timing of disability service contacts and disability type was drawn from additional service system data collections, and where possible, disabilities were categorised into three non-mutually exclusive groups – physical disability, psychosocial disability, and cognitive disability.<sup>16</sup>

<sup>12</sup> For a detailed discussion of the NDDA pilot study and integrated datasets see Australian Institute of Health and Welfare (AIHW, 2021).

<sup>13</sup> See Ringland, Boiteux & Poynton (2022b) for a detailed overview of the Justice test case dataset.

<sup>14</sup> For technical details of how offending was measured in this study see the offending sub-section of the method section of this report.

<sup>15</sup> Interested readers are directed to Appendix Table A1 for an overview of the birth cohort dataset segmentation process.

<sup>16</sup> For a summary of the approach to disability identification used in this study, see Appendix A of Ringland et al. (2022b) for a description of the approach developed by CFBS (2021).

Although information was available regarding the timing of disability identification, the study makes use of an ever-identified measure of disability which considers all disability service information available in the datasets before the age of 18. There are several reasons for this decision. Firstly, the disability data for this study covered the period between 2009 and 2018, meaning that a full history of disability service usage was not available over the entire lifetime of the birth cohort. Secondly, core disability services included in the study use a variety of eligibility criteria which may skew the timing of service contact. For example, individuals must be over 16 years of age to access the Commonwealth DSP. Finally, delays in the identification and diagnosis of disability in early life are common for many disability types, and are often dependent on the availability and capability of diagnostic tools and practitioners. While the use of an ever-identified measure means that some people with disability may have had their disability recognised by a disability service after contact with the CJS, this appears to impact relatively few people in practice. Of all people with disability identified in the study, 95% had a contact with disability services or supports which preceded the first contact with the CJS as an offender. For the remaining 5% of cases, it was unclear to what extent each person may have experienced any disability-related impairment prior to this contact.

Similarly to timing, information regarding disability affectedness or severity were not consistently available across datasets and not considered in the study. It is possible that the criminal justice experiences of young people in contact with disability services identified in the study may not be reflective of the wider population of young people disability who may have not come into contact with disability services, or who may not have been eligible for disability services.

Table 1 details the types of disability and the cooccurrence of multiple disability types for people in the birth cohort. Overall, 3.5% of the birth cohort were identified as having any disability before the age of 18. Although not directly comparable, this is consistent with estimates from the ABS Survey of Disability, Ageing and Caring, which suggested that 3.2% (95% CI, [2.3% - 4.1%]) of the NSW population aged between 15-24 were a person with disability who either sometimes or always had difficulty with a core activity of communication, mobility, and self-care (ABS, 2019). The most common disability type identified in the cohort was cognitive disability (n=10,913, 84% of all people with disability), followed by psychosocial disability (n=7,157, 55% of all people with disability) and physical disability (n=5,312, 41% of all people with disability). Approximately 2% of all people with disability identified in the study cohort did not have a disability type recorded (n=246). Groupings of disability type were not mutually exclusive, and there was significant overlap between the disability types observed in the sample. Notably, 65% of all people with disability had more than one disability type recorded, and 16% experienced cognitive, physical, and psychosocial disability. The most significant interactions between disability types were present in the cohort of people with physical and psychosocial disability, of whom around 90% also experienced cognitive disability. It is important to note that the disability measure used in this study is unable to identify instances of overlapping disabilities within each disability type. For example, if a person is diagnosed as having both intellectual disability and autism spectrum disorder, the study is only able to identify the presence of cognitive disability.

**Table 1. Number and proportion of people with disability in the birth cohort by mutually exclusive disability type categorisations**

	n	% of people with disability	% of total NSW population
Unidentified disability type	246	1.9	0.1
Cognitive disability only	2,686	20.6	0.7
Physical disability only	637	4.9	0.2
Psychosocial disability only	1,007	7.7	0.3
Cognitive and Physical disability only	2,306	17.7	0.6
Cognitive and Psychosocial disability only	3,781	29.0	1.0
Physical and Psychosocial disability only	229	1.8	0.1
Cognitive, Physical and Psychosocial disability	2,140	16.4	0.6
<b>Total</b>	<b>13,032</b>	<b>100.0</b>	<b>3.5</b>

*Note.* Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables.



## Variables

### Offending

Offending information was sourced from the NSW Bureau of Crime Statistics and Research Re-offending Database (ROD). ROD contains records of all finalised police cautions, youth justice conferences, and court appearances in NSW since 1994. The scope of the ROD extract used in this study was further limited to those with any CJS contact between 2009 and 2018. An offence was defined as any finalised police caution, youth justice conference or court appearance (regardless of outcome), experienced by a person between the ages 12 to 17 (inclusive). While the criminal age of responsibility in NSW is 10 years of age, meaning that some young people considered in this study may have had contact with the CJS prior to age 12, the limited scope of the ROD extract used in this study meant that the full offending history for people born between 1997 and 1998 could not be observed.<sup>17</sup> As few young people under the age of 12 are proceeded against for an offence in NSW,<sup>18</sup> this restriction is unlikely to significantly impact our results. Information regarding episodes in custody was sourced from Youth Justice NSW. Both remand and sentenced custodial episodes for persons aged between 12 and 17 were included in the study.

Offences were categorised by type according to the Australian and New Zealand Standard Offence Classification (ANZSOC) division associated with each offence.<sup>19</sup> These groups are further combined into several higher order categories, including:

- Violent offences – Includes acts intended to cause injury (ANZSOC division 02); and, sexual assault and related offences (ANZSOC division 03).
- Property offences – Includes unlawful entry with intent/burglary, break and enter (ANZSOC division 07); theft and related offences (ANZSOC division 08); and, fraud, deception and related offences (ANZSOC division 09).
- Domestic violence offences – Includes all offences flagged as domestic violence related.
- Non-traffic offences – Includes all offences except traffic and vehicle regulatory offences (ANZSOC division 14).

### YOA diversion

In NSW, eligible young offenders may be diverted from court by way of a police warning,<sup>20</sup> police caution, or youth justice conference under the YOA. To be considered eligible for diversion, a young person must:

- have an eligible offence (ineligible offences are detailed in section 8 of the YOA);
- admit guilt; and,
- not have more than three prior cautions.

When assessing the proportion of young offenders who are diverted under the YOA, the study first identifies the offences which are eligible for diversion. For a discussion of the identification and differences in YOA eligibility criteria see Appendix B.

### MHA dismissals

Between 2009 and 2018, magistrates were able to consider applications for dismissals under sections 32 and 33 of the (now repealed) Mental Health (Forensic Provisions) Act. It allowed for the court, if satisfied that a person was suffering from a mental health condition, to order that the person be placed into the

<sup>17</sup> For example, those born in 1997 would have been 10 years of age in 2007. If they had a finalised police caution, youth justice conference, or court appearance prior to age 12, and then not again before the age of 18, this would not be evident from the data available in this study.

<sup>18</sup> As an example, only 0.6% (n=142) of offenders born in 2000 have an offence prior to age 12, with 78.2% (n=111) having further offences before the age of 18.

<sup>19</sup> For an overview of the structure of offence classifications, see ABS (2011). Direct reference to ANZSOC divisions recording Homicide and related offences (01), and Miscellaneous offences (16) were excluded from this study due to the very small number of young offenders with these offence types.

<sup>20</sup> Information on warnings is not systematically recorded in NSW. Acknowledging this, YOA diversion in this study refers to cautioning or participation in youth justice conferencing.

care and treatment of mental health professionals, to discharge them unconditionally, or to discharge them under treatment and/or assessment conditions. To be eligible, a person must be:

- in court for a matter that is not strictly indictable, and;
- cognitively impaired (includes borderline intellectual function, foetal alcohol spectrum disorder); or
- suffering from a mental illness (e.g., hallucinations, mood disorders); or
- suffering from a mental condition for which treatment is available in a mental health facility.

If a defendant is deemed eligible then the magistrate decides whether it is more appropriate to dismiss the matter or deal with it in accordance with the ordinary criminal law, and may consider factors such as the seriousness of the offence, criminal history, a treatment plan, a limited period of conditional orders, and alternative sentencing options.<sup>21</sup>

Information concerning the first of these criteria was available in the ROD, thereby allowing for disaggregation by strictly indictable, and non-strictly indictable offences when comparing rates of MHA dismissals. While specific data concerning the final three criteria were not available in criminal justice data collections, analysis of MHA dismissal rates was further disaggregated by disability type. Information on applications for a MHA dismissal was not available in the datasets.

### **Child protection contact and out-of-home care**

Information regarding child protection contact was sourced from a data extract provided by the NSW Department of Communities and Justice. Child protection reports in the study refer to any concern or Risk of Significant Harm (RoSH) reports.<sup>22</sup> In the dataset, each report additionally records a primary issue of concern, categorised into ten groups. Note that not all concern or RoSH reports are investigated, and those that are may not be substantiated. In cases where maltreatment or other issues of concern are substantiated, and where a young person is considered unsafe, they may be removed from their homes and placed into OOHC. Any episode in OOHC in this study is recorded as any entry into care, and episodes are categorised into four placement types. These include foster care, kinship care, residential care, and other placement types.<sup>23</sup> Where a young person exits and re-enters OOHC, we define the number of non-continuous placements as the number of OOHC placements separated by a minimum of eight weeks (which is in line with national reporting standards, see AIHW, 2022).

### **Sociodemographic information**

Multiple datasets available in the test case were used to derive sociodemographic characteristics, including age, gender, location of residence (postcode and/or statistical area), and Aboriginality.<sup>24, 25</sup> Measures of socioeconomic disadvantage and remoteness of area of residence were further derived using location of residence. Specifically, remoteness of residence was constructed using standardised remoteness area classifications from the Accessibility and Remoteness Index of Australia (ARIA+), which measures remoteness on the basis of relative access to services in each area (ABS, 2016). Similarly, relative quartiles of socioeconomic disadvantage were constructed using the Socioeconomic Indexes for Areas (ABS, 2018). In line with a best practice approach to the identification of Aboriginal people in linked administrative datasets, the study worked closely with an Aboriginal Perspectives Expert Advisory Panel to assess multiple methods of identifying Aboriginal people across the test case datasets.<sup>26</sup> With support of the panel, the study made use of a Multi-Stage Median Algorithm approach to identifying Aboriginality. Originally developed by Christensen et al. (2016), this measure has been shown to improve accuracy

21 A detailed description of the MHA dismissal process is available in New South Wales Local Court (2020).

22 The study does not make a distinction between concern and RoSH reports to account for a known change in the threshold for case escalation during the study period (in 2010), from a risk of harm to a risk of significant harm.

23 Young people may experience multiple placements and placement types. As a result, placement type variables are not mutually exclusive.

24 A hierarchy of data sources was established and rules were created to determine the characteristics, with agreement between sources examined and evaluated.

25 Based on advice from the Aboriginal Services Unit within the NSW Department of Communities and Justice, in this report we predominantly use the term "Aboriginal" to denote people elsewhere referred to as "First Nations people", "First Peoples", and/or "Aboriginal and Torres Strait Islander people".

26 For further information on the national best practice guidelines for data linkage activities relating to Aboriginal people, see AIHW and ABS (2012).



across many of the administrative datasets collected by NSW Health (Nelson et al., 2020), including those available in the NDDA pilot dataset. Broadly, the approach assesses the weight of evidence that an individual is an Aboriginal person within and across data sources. By doing so, it is able to help overcome known data quality issues such as data linkage errors and underreporting in certain service settings,<sup>27</sup> while leveraging the array of information available across datasets.<sup>28</sup>

### Empirical approach

Two methodological approaches were used in this study. Firstly, a descriptive analysis compared unadjusted rates of offending before the age of 18 for people with and without disability. Secondly, logistic regression analysis was used to identify factors associated with first contact with the youth justice system for young people with disability. This analysis was restricted to the cohort of young people identified with disability. The model takes the following form:

$$Y_i = \beta_0 + \beta_1 \text{Disability}_{i,d} + \beta X'_i + \tau_i + \varepsilon_i \quad (1)$$

Where  $Y_i$  is a binary outcome measure of whether a person with disability  $i$  offended before the age of 18. Disability type  $d$  refers to subgroups of people with different disability types, including people with cognitive disability, physical disability, psychosocial disability, and any disability identified in the dataset before the age of 18. To account for comorbidities in disability type,  $\text{Disability}_{i,d}$  is included as a vector of binary variables capturing whether person  $i$  was identified as having a disability type  $d$ . Next,  $X'_i$  is a vector of factors that may be associated with initial offending, including demographic information on gender, age at first contact with a disability service, Aboriginality, relative socioeconomic disadvantage, and remoteness of residence. It also includes information on reports of suspected child maltreatment and other child protection concerns, as well as any prior interactions with the OOHC system in NSW. Additionally,  $\tau_i$  is a variable capturing birth year fixed effects, and  $\varepsilon_i$  refers to the error term of the model.

Finally, descriptive analysis is again used to examine and compare unadjusted differences in offence type, age at first offence, YOA diversion rates, court outcomes (including MHA dismissals), and penalty types for young people with and without disability who have contact with the youth justice system. These data were also broken down by disability type.

## RESULTS

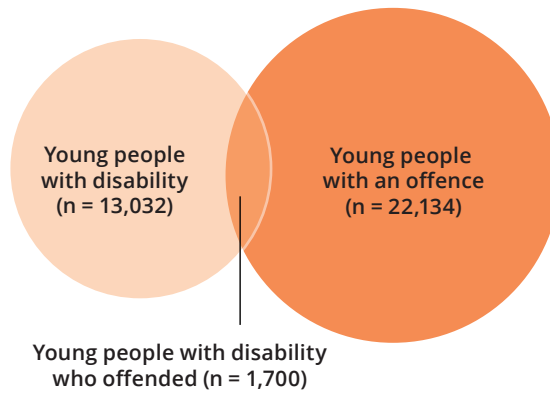
### Offending by young people with disability in the birth cohort

Figure 1 shows the number of people in the birth cohort who were identified with disability ( $n=13,032$ ) and the number of people in the birth cohort who recorded an offence before age 18 ( $n=22,134$ ). The number of young people falling into both these cohorts ( $n=1,700$ ) is also indicated in the figure. Of the 13,032 people with disability identified in this study, 13% offended as a young person, and 4% had at least one episode in youth detention. Although the majority of people with disability did not offend before the age of 18, people with disability are overrepresented in the youth justice system. This is evident from Figure 2, which shows the relative proportion of different population groups who were identified as people with disability. As seen here, young people with disability account for just 3.5% of the NSW population but represent 7.7% of all young offenders and 17.4% of those with a youth detention episode.

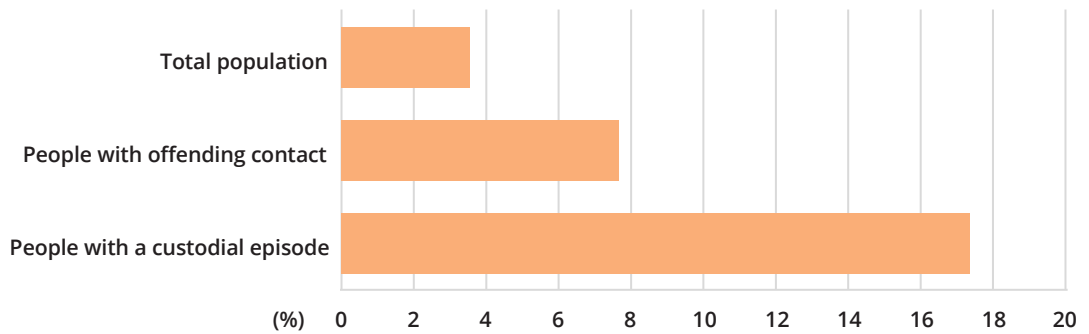
<sup>27</sup> See Hunter and Ayyar (2011) for a discussion of the likely under identification of Aboriginal people in NSW criminal justice data collections.

<sup>28</sup> Interested readers are directed to Gialamas et al. (2016) for a detailed discussion of the influence of inaccurate measures of Aboriginality on measured outcomes. For a detailed methodology behind the Multi-Stage Median Algorithm, see Appendix 2, Christensen et al. (2016).

**Figure 1. Number of young people in the birth cohort with disability and with an offence recorded before age 18, NSW**



**Figure 2. Relative proportion of NSW population groups in the birth cohort identified as people with disability**



### Age at first contact with the criminal justice system and frequency of offending before age 18

Figures 3 and 4 depict the cumulative proportion of the birth cohort population with an offence and those with an episode in youth detention, respectively, broken down by the age at which the young person first experienced the type of CJS contact and whether they were identified as a person with disability (including disability type). As seen from Figure 3, the proportion of people with disability who had any offence before the age of 18 was more than double that of people without disability (13%, vs. 6%). These differences are even greater when focusing on the proportion of young people with disability who experienced an episode in youth detention (see Figure 5), which was nearly six times higher than that of people without disability (4%, vs. 0.7%). Differences were also evident by type of disability, with a much higher proportion of people with psychosocial disability (16%) and cognitive disability (12%) having offended before the age of 18 compared with young people without disability.

Figure 3. Cumulative proportion of NSW population in the birth cohort with an offence before age 18, by age at first offence and disability type

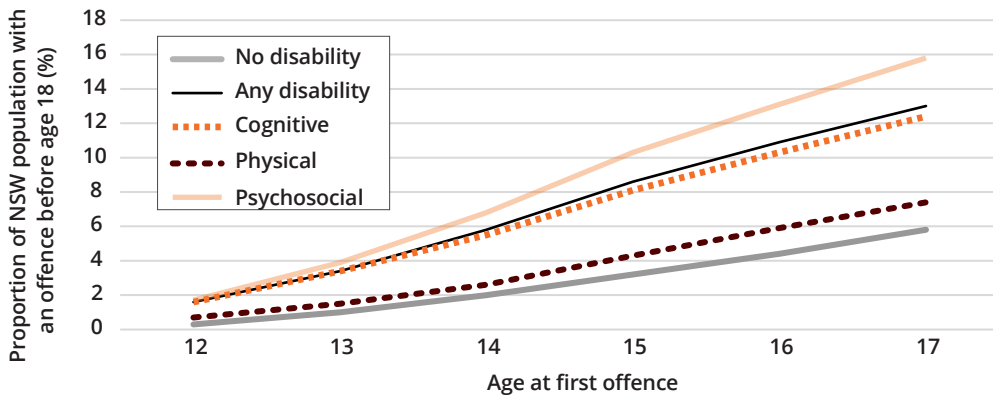


Figure 4. Cumulative proportion of NSW population in the birth cohort with a youth detention episode, by age at first episode and disability type

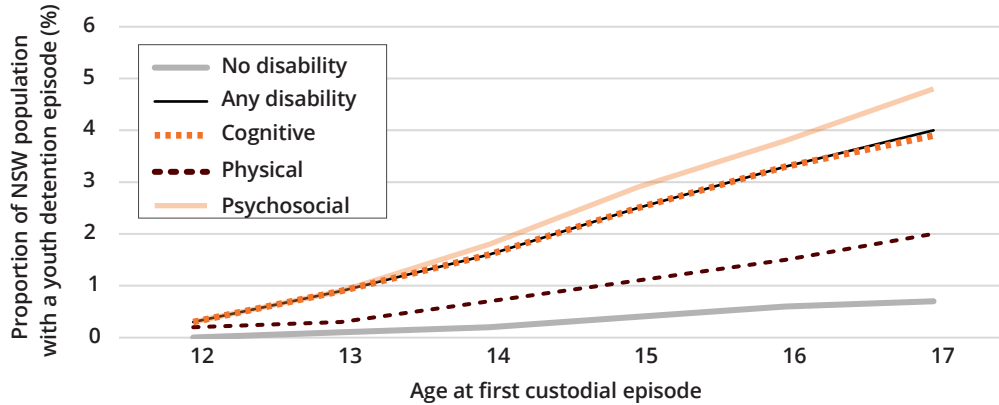


Figure 5. Average number of offences before age 18 per offender in the birth cohort, by disability type

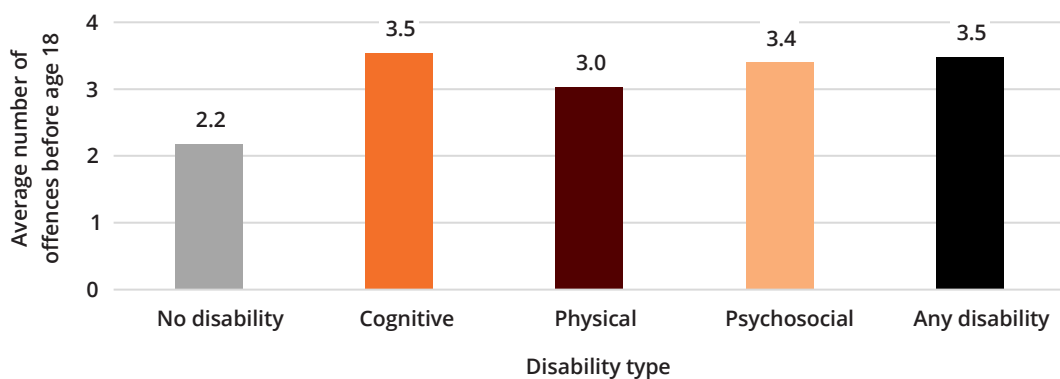


Figure 5 shows the average number of offences accumulated by young offenders before the age of 18, broken down by the presence and type of disability. People with any disability had a higher frequency of offences before the age of 18 than people without disability (3.5 offences, vs. 2.2 offences). Differences were also apparent by disability type. On average, people with physical disability had a lower number of offences before the age of 18 (3.0 offences), compared to people with psychosocial disability (3.4 offences) and cognitive disability (3.5 offences).

## Factors associated with youth offending for people with disability

In this section we examine factors associated with people with disability coming into contact with the CJS before the age of 18. Table 2 shows the characteristics of all people with disability in the cohort (column 1 & 2) and the characteristics of those people with disability who recorded an offence before the age of 18 (column 3, 4 & 5). Of all young people with disability identified in this study, 84% had a cognitive disability, 55% had a psychosocial disability, and 41% had a physical disability. People with disability were predominantly male (65%), were non-Aboriginal or their Aboriginality was unknown (85%), were from a major city (65%), most commonly lived in an area associated with the highest quartile of socioeconomic disadvantage (31%) and were most likely to have had their first contact with a disability-related service before the age of 13 (56%). Table 2 also shows that a higher proportion of young offenders with disability had their first contact with disability-related services at a later age compared with the total disability cohort. Young offenders with disability were also more often male (78%, vs. 65%), an Aboriginal person (35%, vs. 15%), living outside a major city (47%, vs. 35%), and living in an area associated with the highest two quartiles of socioeconomic disadvantage (69%, vs. 59%).

Prior to offending, or age 15 for people without offending contact,<sup>29</sup> more than half of all people with disability in the cohort were the subject of a child protection report (51%), and nearly a quarter were the subject of more than six reports (24%). Nearly one third of all people with disability had physical abuse noted as the primary concern for a child protection report (32%), and more than a quarter had neglect (27%) or domestic violence (26%) recorded as a primary concern. Approximately one in five people with disability had emotional abuse (23%) or sexual abuse (20%) recorded as the primary concern. Rather than necessarily reflecting maltreatment, a large proportion of these child protection reports related to the risky behaviour of the young person, or the needs of carers. Of all people with disability in the birth cohort, 17% were the subject of a child protection report where the primary concern was their own behaviour. Carer child protection concerns were noted at a lower rate for young people with disability than other concerns, and most commonly involved concerns related to carer mental health (16%) and carer drug or alcohol use (13%).

Young offenders with disability had higher rates of, and more frequent, contact with the child protection system prior to their first contact with the NSW youth justice system than the wider population of young people with disability experienced before the age of 15. Specifically, 89% of young offenders with disability were the subject of at least one child protection report and nearly two thirds the subject of more than six child protection reports (63%). Young offenders with disability also had primary concerns noted at a much higher rate, with the largest difference being the proportion of young people with a report for their own risky behaviour (55%, vs. 17%). The majority of young offenders with disability had at least one child protection report for physical abuse (69%), neglect (62%), domestic violence (56%), or emotional abuse (54%), and nearly half of young offenders with a disability had a sexual abuse child protection report (44%). Young offenders with disability also had higher rates of carer concerns, including carer mental health concerns (34%, vs. 16%) and carer drug and alcohol use concerns (37%, vs. 13%) than young people with disability who had no contact with the NSW youth justice system.

More than one in ten people with disability in the birth cohort experienced a OOHC placement (12%) prior to the age of 15 or before their first contact with the NSW youth justice system (if they had one), with around one third of these young people experiencing more than two prior non-continuous OOHC placements. Most people with disability placed into OOHC experienced home-based placements (foster care, or relative/kinship care). Of all people with disability who experienced an OOHC placement, 75% were placed into foster care (9% of all people with disability), and 48% were placed into kinship care (6% of all people with disability). Only 17% of people with disability with an OOHC placement had experienced a prior residential care placement (2% of all people with disability). Young offenders with disability had a higher rate of placement into OOHC than the broader population of people with disability, with nearly one third having at least one placement into OOHC (31%), and one in ten having at least one placement into residential care (10%) before their first offence.

<sup>29</sup> Where a person with disability has no offence, prior contact with services relate to occurrences before age 15, which corresponds to both the mean and median age of first offence for offenders with disability in the study. This simplifying assumption was found to have little impact on proportions and coefficient estimates in robustness checks disaggregating the regression by both disability type and age of first contact.

**Table 2. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18**

	People with disability identified before age 18		People with disability and an offence identified before age 18			Multivariate logistic regression model	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	n	% (col)	n	% (col)	% (row)	Adjusted OR	95% CI
<b>Panel A. Totals</b>							
<b>Total</b>	13,032	100.0	1,700	100.0	13.0		
<b>Panel B. Disability characteristics</b>							
<b>Disability type, vs. disability of a different type</b>							
Cognitive disability, vs. other	10,913	83.7	1,356	79.8	12.4	0.74***	(0.62, 0.88)
Physical disability, vs. other	5,312	40.8	395	23.2	7.4	0.63***	(0.54, 0.72)
Psychosocial disability, vs. other	7,157	54.9	1,130	66.5	15.8	1.42***	(1.25, 1.62)
<b>Age of first disability service contact</b>							
0-9	3,313	25.4	185	10.9	5.6	0.45***	(0.37, 0.55)
10-12	4,011	30.8	540	31.8	13.5	1.00	
13-15	3,003	23.0	424	24.9	14.1	1.45***	(1.22, 1.73)
16-17	2,705	20.8	551	32.4	20.4	1.79***	(1.53, 2.09)
<b>Panel C. Sociodemographic characteristics</b>							
<b>Gender</b>							
Male	8,518	65.4	1,318	77.5	15.5	1.00	
Female	4,514	34.6	382	22.5	8.5	0.36***	(0.31, 0.42)
<b>Aboriginality</b>							
Non-Aboriginal or unknown	11,087	85.1	1,102	64.8	9.9	1.00	
Aboriginal	1,945	14.9	598	35.2	30.7	1.95***	(1.68, 2.25)
<b>Remoteness area of residence</b>							
Major cities	8,420	64.6	904	53.2	10.7	1.00	
Inner regional	3,533	27.1	609	35.8	17.2	1.35***	(1.17, 1.56)
Outer regional or remote	1,073	8.2	187	11.0	17.4	1.34***	(1.07, 1.66)
<b>Socioeconomic disadvantage (SEIFA quartile, 1=Most disadvantaged)</b>							
Quartile 1	4,002	30.7	611	35.9	15.3	1.01	(0.87, 1.17)
Quartile 2	3,719	28.5	554	32.6	14.9	0.94	(0.79, 1.12)
Quartile 3	2,803	21.5	302	17.8	10.8	1.01	(0.80, 1.26)
Quartile 4	2,508	19.2	233	13.7	9.3	1.00	
Unknown	335	2.6	84	4.9	25.1	1.98***	(1.37, 2.86)
<b>Year of birth</b>							
1997	3,240	24.9	531	31.2	16.4	1.00	
1998	3,126	24.0	404	23.8	12.9	0.77***	(0.65, 0.91)
1999	3,222	24.7	405	23.8	12.6	0.86*	(0.73, 1.02)
2000	3,444	26.4	360	21.2	10.5	0.82**	(0.68, 0.98)
<b>Panel D. Child protection and OOHC</b>							
<b>Prior<sup>a</sup> child protection reports</b>							
0	6,343	48.7	193	11.4	3.0	1.00	
1-2	1,944	14.9	189	11.1	9.7	2.38***	(1.90, 3.00)
3-6	1,568	12.0	256	15.1	16.3	2.96***	(2.23, 3.92)
7-12	1,092	8.4	263	15.5	24.1	3.37***	(2.35, 4.84)
13+	2,085	16.0	799	47.0	38.3	4.34***	(2.77, 6.80)

**Table 2. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18 - cont'd**

			People with disability identified before age 18		People with disability and an offence identified before age 18			Multivariate logistic regression model	
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
			n	% (col)	n	% (col)	% (row)	Adjusted OR	95% CI
<b>Previously<sup>a</sup> identified as being at risk of primary child protection issue</b>									
At risk due to own behaviour	No		10,802	82.9	770	45.3	7.1	1.00	
	Yes		2,230	17.1	930	54.7	41.7	3.18***	(2.73, 3.70)
Carer mental health	No		10,902	83.7	1,130	66.5	10.4	1.00	
	Yes		2,130	16.3	570	33.5	26.8	0.75***	(0.64, 0.88)
Carer other	No		11,720	89.9	1,296	76.2	11.1	1.00	
	Yes		1,312	10.1	404	23.8	30.8	0.89	(0.75, 1.06)
Domestic violence	No		9,664	74.2	752	44.2	7.8	1.00	
	Yes		3,368	25.8	948	55.8	28.1	1.15*	(0.98, 1.35)
Carer drug or alcohol use	No		11,286	86.6	1,078	63.4	9.6	1.00	
	Yes		1,746	13.4	622	36.6	35.6	1.29***	(1.09, 1.53)
Emotional abuse	No		10,095	77.5	787	46.3	7.8	1.00	
	Yes		2,937	22.5	913	53.7	31.1	1.10	(0.93, 1.30)
Neglect	No		9,543	73.2	640	37.6	6.7	1.00	
	Yes		3,489	26.8	1,060	62.4	30.4	1.34***	(1.12, 1.59)
Other	No		11,100	85.2	1,084	63.8	9.8	1.00	
	Yes		1,932	14.8	616	36.2	31.9	1.02	(0.86, 1.20)
Physical abuse	No		8,832	67.8	533	31.4	6.0	1.00	
	Yes		4,200	32.2	1,167	68.6	27.8	1.24**	(1.04, 1.49)
Sexual abuse	No		10,409	79.9	945	55.6	9.1	1.00	
	Yes		2,623	20.1	755	44.4	28.8	1.02	(0.87, 1.19)
<b>Previously<sup>a</sup> placed into OOHC type</b>									
Foster care	No		11,856	91.0	1,326	78.0	11.2	1.00	
	Yes		1,176	9.0	374	22.0	31.8	0.49***	(0.36, 0.67)
Kinship care	No		12,269	94.1	1,406	82.7	11.5	1.00	
	Yes		763	5.9	294	17.3	38.5	1.13	(0.86, 1.48)
Other	No		12,435	95.4	1,454	85.5	11.7	1.00	
	Yes		597	4.6	246	14.5	41.2	1.23	(0.93, 1.61)
Residential care	No		12,766	98.0	1,528	89.9	12.0	1.00	
	Yes		266	2.0	172	10.1	64.7	5.08***	(3.62, 7.12)
<b>Previous<sup>a</sup> non-continuous OOHC placements</b>									
	0		11,454	87.9	1,167	68.6	10.2	1.00	
	1-2		1,078	8.3	335	19.7	31.1	1.16	(0.81, 1.65)
	3+		500	3.8	198	11.6	39.6	1.33	(0.86, 2.05)
<b>Constant</b>								0.04**	(0.03, 0.06)

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. <sup>a</sup> Proportions refer to occurrences before first offence. Where a person with disability has no offence, proportions relate to occurrences before age 15, which corresponds to both the mean and median age of first offence for offenders with disability in the study. This simplifying assumption was found to have little impact on proportions and coefficient estimates in robustness checks disaggregating the regression by both disability type and age of first contact. Regression diagnostics: Pseudo R-Squared = 0.30, AUC = 0.87, N = 13,032. n – frequency; Adjusted OR – Odds Ratio; 95% CI – The 95 % confidence interval associated with the odds ratio coefficient estimate. Stars indicate statistical significance at a variety of conventional thresholds of statistical significance: \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ .



We now turn to examining the associative influence of these factors on the likelihood of a person with disability offending before age 18. Column 6 of Table 2 presents the conditional associations between disability type, demographic characteristics, early life experiences, and the likelihood of committing a criminal offence before the age of 18, for all people with disability in the birth cohort.<sup>30</sup> Focusing on Panel B, we see that compared to other disability types, having a psychosocial disability was associated with a higher likelihood of offending before the age of 18 (OR = 1.42; 95% CI [1.25, 1.62]), and both cognitive (OR = 0.74; 95% CI [0.62, 0.88]) and physical disability (OR = 0.63; 95% CI [0.54, 0.72]) were associated with a lower likelihood of offending compared to other disability types. Descriptive statistics and regression models presented in Table 2 were reproduced for the subset of young people with cognitive, physical, and psychosocial disability, with results available in Appendix C, Tables C1, C2, and C3 respectively. Coefficient estimates from the logistic regression models were largely similar across models, however these disaggregated results provide insight into the association between cooccurring disability types and offending by young people with disability. For young people with either a physical or cognitive disability, having a cooccurring psychosocial disability was associated with an increased likelihood of offending. For young people with psychosocial disability, having a cooccurring physical or cognitive disability was associated with a reduced likelihood of offending (see Appendix C for a discussion of these differences).

Aside from disability type, the results from Table 2 indicate that engagement with disability services at an earlier age was associated with a lower likelihood of youth offending. Compared to people with disability who were first in contact with disability services at the age of 10-12 years, the odds of offending for those with first contact between 13-15 years of age offending were around 1.5 times higher (OR = 1.45; 95% CI [1.22, 1.73]), and the odds of offending for those whose first contact with disability services was between the ages of 16-17 were 1.8 times higher (OR = 1.79; 95% CI [1.53, 2.09]).

Multiple sociodemographic characteristics were also associated with the likelihood of offending. Focusing on Panel C, the odds of a female with disability offending were one third that of males with disability (OR = 0.36; 95% CI [0.31, 0.42]), and the odds of Aboriginal people with disability offending were nearly twice that of non-Aboriginal people with disability (OR = 1.95; 95% CI [1.68, 2.25]). Interestingly, socioeconomic disadvantage of area was not strongly associated with the likelihood of young people with disability offending before 18, once other factors were accounted for. However, greater remoteness of residence was associated with a higher likelihood of offending. Compared to people with disability living in major cities, the odds of offending for those living in inner regional, or outer regional and remote areas were 1.3 times higher (OR = 1.35; 95% CI [1.17, 1.56], for inner regional areas; OR = 1.34; 95% CI [1.07, 1.66], for outer regional or remote areas).

Concentrating on Panel D, a greater number of reports to child protection services was significantly associated with youth offending. Compared with people with disability who have no formal reports to child protection services, the odds of offending amongst those with between 1 and 2 reports were nearly two and a half times higher (OR = 2.38; 95% CI [1.90, 3.00]). Similarly, the odds of offending amongst people in the disability cohort who had 13 or more reports to child protection services were more than four times higher than those of people with disability who had no child protection contacts (OR = 4.34; 95% CI [2.77, 6.80]). The reasons for the young person's contact with child protection services were also found to be an important factor associated with offending. Most notably, young people with disability who were previously reported as being at risk due to their own behaviour had odds of offending more than three times (OR = 3.18; 95% CI [2.73, 3.70]) higher than young people with disability who had not been reported as at risk for their own behaviour.

<sup>30</sup> Overall, the accuracy of models presented in Table 2 was excellent, with an Area Under the Receiver Operating Characteristic Curve (AUC) value of 0.87. The AUC is a common measure for assessing the accuracy of logistic regression models. It ranges in value between 0.5 and 1.0 and is commonly interpreted using classifications proposed by Hosmer and Lemeshow (2004), who suggest that values of 0.7-0.8 represent "acceptable" accuracy, 0.8-0.9 represent "excellent" accuracy, and 0.9-1.0 represent "outstanding" accuracy.

Reports of neglect and physical abuse were also associated with a higher likelihood of a person with disability offending before the age of 18. The odds of offending were 1.3 times higher for a person with disability who has a prior child protection report indicating neglect (OR = 1.34; 95% CI [1.12, 1.59]) and 1.2 times higher for a person with disability who had a prior report of physical abuse (OR = 1.24; 95% CI [1.04, 1.49]) than people with disability who had no reports of neglect or physical abuse by age 15. Having prior reports for carer alcohol and drug abuse was also associated with higher odds of youth offending (OR = 1.29; 95% CI [1.09, 1.53]). A report for sexual or emotional abuse was not associated with increased odds of offending.

While the experience of multiple non-continuous OOHC placements was associated with higher odds of offending (OR = 1.33; 95% CI [0.86, 2.05], for people with disability with three or more placements compared with no OOHC placements), these differences were not statistically significant at conventional levels. The type of placement, however, appears to matter. Having a prior placement into foster care was associated with lower odds of offending (OR = 0.49; 95% CI [0.36, 0.67]), and a prior placement into residential care was associated with much higher odds of offending for people with disability (OR = 5.08; 95% CI [3.62, 7.12]).<sup>31</sup>

### Types of offences committed by young offenders in the birth cohort with and without disability

In addition to higher rates of contact with the CJS, people with disability were found to have a notably different offending profile compared with people without disability. Table 3 shows the number of people in the birth cohort who recorded an offence before age 18 by type of offence at first contact and type of disability (where one has been identified). Compared to offenders without disability, young offenders with disability more commonly committed violent offences (31%, vs 20%); domestic violence offences (16%, vs 8%); property damage and environmental pollution offences (14%, vs 11%); and, offences against justice procedures, government security and government operations (4%, vs 2%). Young offenders with disability less commonly committed illicit drug offences (7%, vs 13%); traffic and regulatory offences (3%, vs 6%); and, theft and related offences (21%, vs 27%) compared with other young offenders without disability. These differences remained when all offences committed before the age of 18 were considered (see Table D1 in Appendix D).

<sup>31</sup> This associative difference should be interpreted with caution given both the small number of people with disability who had an episode in residential care and likely confounding between unobserved factors relating to placement in residential care that are unable to be controlled for directly in the model.

**Table 3. Type of first offence for young people in the birth cohort, by presence and type of disability**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	N	%	n	%	n	%	n	%
<b>Panel A. ANZSOC divisions</b>										
Acts intended to cause injury (02)	3,721	18.2	390	28.8	130	32.9	359	31.8	473	27.8
Sexual assault and related offences (03)	368	1.8	48	3.5	16	4.1	31	2.7	50	2.9
Dangerous or negligent acts endangering persons (04)	267	1.3	<10	<0.7	<10	<2.5	<10	<0.9	10	0.6
Abduction, Harassment and other offences against the person (05)	185	0.9	14	1.0	<10	<2.5	<10	<0.9	17	1.0
Robbery, extortion and related offences (06)	206	1.0	14	1.0	<10	<2.5	11	1.0	22	1.3
Unlawful entry with intent/burglary, break and enter (07)	1,078	5.3	92	6.8	20	5.1	61	5.4	109	6.4
Theft and related offences (08)	5,519	27.0	273	20.1	72	18.2	209	18.5	349	20.5
Fraud, deception and related offences (09)	200	1.0	<10	<0.7	<10	<2.5	<10	<0.9	12	0.7
Illicit drug offences (10)	2,610	12.8	78	5.8	29	7.3	84	7.4	115	6.8
Prohibited and regulated weapons and explosives offences (11)	612	3.0	50	3.7	<10	<2.5	37	3.3	59	3.5
Property damage and Environmental pollution (12)	2,287	11.2	198	14.6	57	14.4	160	14.2	245	14.4
Public order offences (13)	1,551	7.6	77	5.7	27	6.8	71	6.3	110	6.5
Traffic and vehicle regulatory offences (14)	1,225	6.0	45	3.3	<10	<2.5	28	2.5	53	3.1
Offences against justice procedures, government security and government operations (15)	415	2.0	49	3.6	13	3.3	48	4.2	62	3.6
<b>Panel B. Offence type categorisations</b>										
Violent offences	4,089	20.0	438	32.3	146	37.0	390	34.5	523	30.8
Property fraud offences	6,797	33.3	374	27.6	94	23.8	279	24.7	470	27.6
Domestic Violence offences	1,583	7.7	239	17.6	87	22.0	215	19.0	279	16.4
Non-traffic offences	19,209	94.0	1,311	96.7	388	98.2	1,102	97.5	1,647	96.9
All offences	20,434	100.0	1,356	100.0	395	100.0	1,130	100.0	1,700	100.0

Note. ANZSOC code offence categorisations reported in brackets. As a privacy preserving measure, offences with ANZSOC divisions 01 and 16 are not disaggregated from all offences. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Tables 3, 4, 5, and 6 are reproduced considering all offences prior to age 18 in Appendix D tables D1, D2, D3, and D4. Censoring has been applied to cells with counts less than 10.

### Youth diversion rates, court outcomes, and penalties for first-time young offenders in the birth cohort with and without disability

In this section we examine how young people with disability in the birth cohort were proceeded against for their first offence (if one was recorded), the outcomes associated with any court proceedings, and the types of penalties imposed by the court. Importantly, as young people are only eligible to receive up to three cautions under the YOA, all first-time offenders with eligible offence types are similarly likely to be eligible for diversion.<sup>32</sup>

<sup>32</sup> One exception is in the requirement for an admission of guilt at the time of offence. While this study has attempted to address this concern by incorporating information regarding a guilty plea at court appearance into eligibility criteria as a proxy measure for an admission of guilt at the time of offence (see Appendix B), it remains possible that unobserved differences in the admission of guilt at the time of offence may have rendered a young person ineligible for diversion.

Table 4 presents unadjusted rates of YOA diversions for young people with and without disability, broken down by disability type, and whether the offence was eligible for diversion. For first time offenders with an eligible offence, there was little difference between people with disability and people without disability in the rate of diversion. This was true also when diversion rates were examined by disability type. An exception was young people with physical disability, who had eligible matters proceeded to court (rather than by way of a caution or Youth Justice Conference) at a slightly higher rate than young people without disability (8%, vs 7%), albeit for a very small number of people in total (n=22). For offences which were either ineligible for YOA diversion or where eligibility was unknown, people without disability received YOA diversions at a much higher rate (46%, vs 31%). However, this difference was likely driven by the higher prevalence of illicit drug offences (for which YOA eligibility is unable to be determined in absence of drug quantity) amongst first time offenders without disability.

**Table 4. Diversion rates for first-time offenders in the birth cohort, by disability type and whether the offence was eligible for diversion**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
<b>Panel A. Offence type eligible for a YOA diversion</b>										
YOA diversion	13,176	93.3	894	93.3	248	91.9	752	93.8	1,128	93.4
Proceeded to court	947	6.7	64	6.7	22	8.1	50	6.2	80	6.6
<b>Total</b>	<b>14,123</b>	<b>100.0</b>	<b>958</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>802</b>	<b>100.0</b>	<b>1,208</b>	<b>100.0</b>
<b>Panel B. Offence type ineligible for a YOA diversion, or offence eligibility unknown</b>										
YOA diversion	2,910	46.2	108	27.1	40	32.0	102	31.1	150	30.5
Proceeded to court	3,384	53.8	290	72.9	85	68.0	226	68.9	342	69.5
<b>Total</b>	<b>6,294</b>	<b>100.0</b>	<b>398</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>	<b>328</b>	<b>100.0</b>	<b>492</b>	<b>100.0</b>

*Note.* Eligible offences mirror the legislated requirements under the YOA, as described in Appendix B. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Tables 3, 4, 5, and 6 are reproduced considering all offences prior to age 18 in Appendix D tables D1, D2, D3, and D4.

For matters which proceeded to court, people impacted by cognitive and mental health impairments at the time of the offence may have been eligible to have their matter dismissed under the Mental Health Act (MHA dismissal). It is important to recognise that not all people with disability identified in the study would be eligible for a MHA dismissal, and that some eligible people with disability may not have submitted a MHA dismissal application to the court. Additionally, people who are not considered to have a disability within the scope of this study may be eligible for a MHA dismissal if the court was satisfied that they were suffering from a mental disorder at the time of the offence.<sup>33</sup>

Table 5 shows the court outcome for first-time offenders who were proceeded against to court, by whether they had a disability and whether the index offence was a strictly indictable offence<sup>34</sup> (which is not eligible for a MHA dismissal). For eligible offences, young people with disability received a MHA dismissal at a significantly higher rate than people without disability (16%, vs 2%). While this was true across all disability types, it is important to consider the large comorbidities between disability types in the study sample when interpreting this result. Interestingly, the majority of MHA dismissals for first-time offenders were received by people who were not in contact with disability specific services or supports before the age of 18 (61%). In addition to higher rates of MHA dismissals, people with disability had

<sup>33</sup> i.e., people with temporary cognitive or psychosocial impairment at the time of offence, or people with disability who were otherwise not in contact with disability-specific services before the age of 18.

<sup>34</sup> In NSW, a select list of serious offences which may carry significant penalties, known as indictable offences, are heard in Higher Courts (i.e., in the District or Supreme Courts). A subset of these offences may only be dealt with in the Higher Courts, and are known as strictly indictable offences. Those that are not strictly indictable offences may otherwise be dealt with in the Local Courts. Offences which are not indictable offences are known as summary offences, and are dealt with in the Local Courts (for a detailed description of indictable offences, see <https://www.judcom.nsw.gov.au/publications/benchbks/local/Introduction.html>).

eligible matters withdrawn or otherwise dealt with at a slightly higher rate than people without disability (4%, vs 3%). Focusing on outcomes for first-time offenders who were proceeded against to court for strictly indictable offences, Table 5 shows that people with disability had a significantly lower proportion of cases finalised with a guilty outcome compared with people without disability (55%, vs 81%).

**Table 5. Court outcome for first-time offenders in the birth cohort, by disability type and whether the offence type was eligible for dismissal**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
<b>Panel A. Offence type eligible for a MHA dismissal (indictable or summary offence)</b>										
MHA dismissal	91	2.4	52	17.0	21	22.3	45	18.6	57	15.8
Not guilty	231	6.1	18	5.9	<15	<16.0	<15	<6.2	20	5.6
Withdrawn or otherwise disposed of	128	3.4	<15	<4.9	<15	<16.0	<15	<6.2	15	4.2
Guilty	3,360	88.2	223	73.1	60	63.8	176	72.7	268	74.4
<b>Total</b>	<b>3,810</b>	<b>100.0</b>	<b>305</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>	<b>242</b>	<b>100.0</b>	<b>360</b>	<b>100.0</b>
<b>Panel B. Offence type ineligible for a MHA dismissal (strictly indictable offence)</b>										
Other <sup>^</sup>	100	19.2	24	49.0	<15	<100.0	15	44.1	28	45.2
Guilty	421	80.8	25	51.0	<15	<100.0	19	55.9	34	54.8
<b>Total</b>	<b>521</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>&lt;15</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>62</b>	<b>100.0</b>

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Tables 3, 4, 5, and 6 are reproduced considering all offences prior to age 18 in Appendix D tables D1, D2, D3, and D4.

<sup>^</sup> - MHA dismissal, Not guilty, and Withdrawn or otherwise disposed of. Censoring has been applied to cells with counts less than 15.

Where young people with matters proceeded against to court are found guilty of an offence, the court can impose a variety of penalties. Table 6 shows the unadjusted number and proportion of penalties received by young people with and without disability who were proceeded to court for their first offence and who were found guilty. It should be noted that these penalties are highly dependent on the type and seriousness of the offence committed, however these factors are not explicitly controlled for in Table 6. Compared to people without disability, people with disability who were found guilty of their first offence more commonly received a supervised community sentence (28%, vs 22%) or an unsupervised community sentence (23%, vs 16%) at court. People with cognitive and psychosocial disability more often received a supervised community sentence than people with physical disability. A higher proportion of people without disability were conditionally released without conviction (16%, vs 12%), and received a fine (18%, vs 6%) compared with people with disability.

**Table 6. Court penalty imposed for first-time offenders in the birth cohort, by disability type**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
Custody	49	1.3	<10	<4.0	<10	<14.7	<10	<5.1	<10	<3.3
Supervised community sentence	825	21.9	72	28.9	15	22.1	52	26.5	84	27.6
Unsupervised community sentence	609	16.2	56	22.5	20	29.4	42	21.4	71	23.4
Fines	665	17.6	16	6.4	<10	<14.7	11	5.6	19	6.3
Conditional release without conviction	604	16.0	29	11.6	9	13.2	24	12.2	35	11.5
Other <sup>*</sup>	1,016	27.0	64	25.7	14	20.6	57	29.1	85	28.0
<b>Total</b>	<b>3,768</b>	<b>100.0</b>	<b>249</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>	<b>196</b>	<b>100.0</b>	<b>304</b>	<b>100.0</b>

Note. <sup>\*</sup> - Other refers to Conviction only, Other, and No conviction recorded. For penalty types of Conviction only and No conviction recorded, people with disability received less than 10 penalties. Minor data perturbation has been applied to prevent identification through group differencing, and as a result, grouped columns may not sum to totals within or between tables. Tables 3, 4, 5, and 6 are reproduced considering all offences prior to age 18 in Appendix D tables D1, D2, D3, and D4. Censoring has been applied to cells with counts less than 10.

## DISCUSSION

This study used a comprehensive linked administrative dataset to identify young people in contact with a set of core disability services and supports, and to explore the extent to which these young people interact with the NSW youth justice system as an offender. It aimed to answer three main questions:

1. What proportion of young people with disability offend? What factors are associated with an increased risk of young people with disability having contact with the CJS as an offender?
2. What types of offences do young people with disability commit? How does this compare with young offenders without disability?
3. Are there any differences in how the CJS responds to young people with disability and those without, in terms of diversion rates and penalties imposed?

Regarding the first question, we found that young people with disability had contact with the NSW youth justice system at more than twice the rate (13%, vs 6%) and at a higher frequency (3.5, vs. 2.2 offences per person before 18) than young people without disability. This differed by disability type, with people with psychosocial disability (16%) and cognitive disability (12%) having a higher rate of contact than people with physical disability (7%). People with disability were similarly overrepresented amongst people who had experienced a youth detention episode (4%, vs 0.7%). We also found that having a psychosocial disability (OR = 1.42; 95% CI [1.25, 1.62]), having initial contact with disability-specific services in late adolescence rather than in childhood (OR = 1.79; 95% CI [1.53, 2.09]), and living outside of a major city (OR = 1.35; 95% CI [1.17, 1.56]) were associated with an increased odds of a person with disability offending before age 18. For young people with cognitive or physical disability, having a cooccurring psychosocial disability was associated with an increased likelihood of offending. There was also a significant association between the likelihood of youth offending and the frequency of child protection reports for people with disability. The odds of a young person with disability, who was the subject of one or two child protection reports, having contact with the youth justice system were approximately 2.5 times higher than for a young person with disability who had not been the subject of a child protection report (OR = 2.38; 95% CI [1.90, 3.00]), and the odds for those who were the subject of more than 13 child protection reports were nearly 4.5 times higher (OR = 4.34; 95% CI [2.77, 6.80]). Child protection reports relating to a young person's own risky behaviour (OR = 3.18; 95% CI [2.73, 3.70]) were most strongly associated with offending, however reports of neglect (OR = 1.34; 95% CI [1.12, 1.59]), carer drug and alcohol abuse (OR = 1.29; 95% CI [1.09, 1.53]), and physical abuse (OR = 1.24; 95% CI [1.04, 1.49]) were also significantly associated with increased odds of offending. Interestingly, having a child protection report where the issue of concern was a carer's mental health (OR = 0.75; 95% CI [0.64, 0.88]), or ever having a foster care placement (OR = 0.49; 95% CI [0.36, 0.67]) were associated with reduced odds of offending for people with disability. While the reasons for this are unclear, one possible explanation might be that the identification of carer mental health concerns results in more support services being delivered to the young person and their family, which may help to reduce the risk of offending. In this context, foster care may similarly result in improved outcomes for the young person as it can be used as a short-term respite service or in place of other support services for people with disability without requiring an indication of maltreatment (Office of the Children's Guardian [OCG], 2020; Royal Commission into Institutional Responses to Child Sexual Abuse, 2016). While it is possible that these associative effects are inadvertently capturing the influence of such supports, more focused research is required to better understand the relationship between maltreatment, OOHC service provision and offending behaviours for young people with disability.

Turning to the second and third research questions, we found that young offenders with disability demonstrated a different offending profile compared with young offenders without disability, with the former being more likely to commit violent offences (including domestic violence offences); property offences; sexual assault and related offences; and offences against justice procedures, government security and government operations. We find little evidence for any differences in the rate of YOA diversion between young offenders with and without disability, however young people with disability were



more often ineligible to receive a YOA diversion due to the nature of the offence committed (i.e., domestic violence, sexual offences, or strictly indictable offences). For matters which proceeded to court and did not involve a strictly indictable offence, people with disability more often had their matter finalised by way of a MHA dismissal, a not guilty verdict, or a withdrawal (26%, vs 12%; for first time offences). Most notably, people with disability received MHA dismissals at a much higher rate than people without disability (16%, vs 2%; for first time offences). Consistent with differences in the types of offences committed, young people with disability also received different penalties from the court. For matters where the offence was proven, the majority of young people with disability received either a supervised or unsupervised community sentence (51%, vs. 38% for people without disability; for first offences). Penalties also differed by disability type, with young people with cognitive and psychosocial disabilities more commonly receiving a community sentence with a supervision component and people with a physical disability more commonly receiving an unsupervised community supervision sentence.

While our results align with previous NSW research suggesting that people with disability are significantly overrepresented in the CJS (see for example, NSW LRC [2012], Royal Commission [2020a], and Ringland et al. [2022a]), our prevalence estimates differ considerably from those reported in other Australian studies. Most notably, Fogden et al. (2016) compared the offending history of 2,600 people with intellectual disability in Victoria between 2007 and 2012 with a sample of people without intellectual disability drawn from the community. They found that people with intellectual disability were equally likely to offend (with any offence type) as people without intellectual disability, with less than 10% of both groups having contact with the CJS. However, similar to the current study, Fogden et al. (2016) observed a higher prevalence of violent and sexual offending amongst people with intellectual disability, and a higher prevalence of general offending amongst people with intellectual disability who had a concurrent psychosocial disability. Separately, several smaller investigative studies undertaken in NSW have suggested very high rates of disability amongst people appearing before the Local Courts, with estimates of the prevalence of cognitive disability ranging between 33% and 57% (Hayes, 1993; 1996), and estimates of the prevalence of mental health impairments as high as 55% (Jones & Crawford, 2007). These conflicting results likely arise from differences in the methodological approaches adopted, particularly the defined study population and the method used to identify disability. For example, Fogden et al. (2016) identified a group of people (both adults and young people) with intellectual disability who participated in a restrictive intervention (rather than all people with cognitive disability in contact with a variety of disability services) which likely leads to an underestimate of CJS contact.<sup>35</sup> Jones and Crawford (2007) relied on self-reported mental illness among two small non-representative samples of adult defendants appearing in the NSW Local Court. The authors note that since there was no objective measure of impairment it is possible that some participants may have over-diagnosed mental health issues causing an overestimate of the number of people with impairment interacting with the CJS.<sup>36</sup>

Mirroring the sentiments of submissions to the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2022), we found that over half of all young people with disability had been the subject of one or more child protection reports, and around one in four had been the subject of six or more reports. This level of child protection intervention for young people with disability is notably higher than highlighted in previous Australian research. For example, in a study assessing the proportion of people with disability in contact with the child protection system in Western Australia (WA), Maclean et al. (2017) found that only 11% of people with disability were the subject of a child maltreatment allegation reported to child protection services. While this difference is substantial, once again, several methodological issues impede the comparability of results from this research. Firstly, the WA study identifies a much broader range of people with disability, those who ever had a disability identified in all

<sup>35</sup> In addition, several methodological issues likely distort the results of this study. Firstly, it makes use of a non-disability comparison group which is significantly older than those identified as having an intellectual disability, and it is unable to account for these differences. Secondly, it derives measures of offending differently for both groups. For those with intellectual disability offending is counted as a criminal charge, while for those with no intellectual disability it is counted as a conviction.

<sup>36</sup> Further to these differences, prevalence measures likely differ as, unlike in our study, Jones and Crawford (2007) focus on people with disability in contact with the NSW Local Court (rather than being inclusive of CJS contact in the Children's Court of NSW), and measure CJS contact over a period of time (rather than over the life course of an individual).

available datasets (rather than those in contact with disability specific services and supports).<sup>37</sup> Secondly, as the study focuses on child protection contact experienced by children rather than following each birth cohort through adolescence, it would necessarily find lower rates of contact with the child protection system. Finally, as the study included children born between 1990 and 2010, it largely measured child protection reports before the introduction of mandatory child protection reporting legislation in Western Australia,<sup>38</sup> and as a result likely undercounts the proportion of people with disability who have experienced maltreatment. Overcoming some of these concerns, our study indicates that the prevalence of child protection contact experienced by young people with disability in NSW, particularly reports for physical abuse, more closely resembles the higher rates reported in the international literature (see for example Jones et al., 2012). Some caution is however warranted when interpreting the significance of our estimates. In this study we took a broad approach and report multiple types of child protection contact involving young people with disability, including maltreatment reports (sexual abuse, physical abuse, emotional abuse, and neglect), reports for young people at risk due to their own behaviour, as well as carer drug and alcohol abuse and mental health concerns. Further, our cohort also consists of a specific subgroup of young people with disability who are in receipt of disability services and supports. It is possible that young people in this cohort have more severe or complex impairments than the broader population of people with disability, and, as a result, are more likely to have contact with the child protection system.<sup>39</sup>

The current research is not without limitations. Due to data and time constraints, the analysis relied on a relatively narrow definition of disability (i.e., young people who were in contact with a set of core disability services and supports before the age of 18). It is likely that there are young people with disability who had contact with the youth justice system who were not included in the disability cohort used in this study.<sup>40</sup> Notably, we observed that the majority of MHA dismissals for first-time offenders were received by people who were not in contact with disability specific services or supports before the age of 18 (62%). Although people without disability may be eligible to receive a MHA dismissal, this high rate is likely reflective of the narrow definition of disability applied in this study. Future work relying on linked administrative datasets should therefore consider the inclusion of additional data sources in order to better identify young people with disability. Estimates from the Survey of Disability, Ageing and Caring suggest that less than 1% of people with disability over the age of 15 never attended school (ABS, 2019). Data collected by the Department of Education may therefore provide a particularly valuable source of disability information for a very large proportion of young people with disability in Australia.<sup>41</sup>

Being one of very few Australian studies examining the interaction of people with disability with the youth justice system, our research has several important implications for research and policy. Firstly, we identify a considerable cooccurrence of different disability types amongst young people with disability in contact with disability services, which suggests that research focusing on a single disability type may be overly simplistic. In line with prior disability-specific research, we find that for young people with disability, having a concurrent psychosocial disability and/or a greater exposure to early adverse experiences are associated with a higher likelihood of contact with the criminal justice system (see for example Fogden et al. [2016]). These results also suggest that policy makers may need to consider the likely heterogeneity in experiences of people with disability both between and within each disability type when designing

37 In doing so, it identifies that 10.4% of the population are people with disability (compared with the 3.5% identified in this study).

38 Mandatory reporting requirements are known to significantly increase and improve measures of child maltreatment. Limited mandatory reporting requirements first came into practice in Western Australia during 2009. This is significantly later than NSW, which first introduced mandatory reporting legislation in 1977. While this means that the birth cohort in our study is not similarly impacted by underreporting, critics of mandatory reporting legislation in NSW have suggested that these requirements may have conversely led to an overestimate of child maltreatment – and this should be considered in the interpretation of these results. For a discussion of the importance of historical developments and interstate differences in child protection practices, see Bromfield and Holzer (2008).

39 High rates of child protection contact observed in our study may also to some extent reflect how disability was identified. That is, if young people who have a contact with the child protection system were more likely to put in contact with disability services or supports, this may positively bias our estimate of the proportion of people with disability with child protection contact. Similarly, if disability services commonly refer people with disability to child protection services, this may promote a higher prevalence of child protection reporting amongst people with disability compared with the general population. It is unclear to what extent these influences may impact our results.

40 In addition to this, the study was limited as we were unable to identify people without disability who were not in contact with the CJS in the dataset. While we are able to identify people with disability who were more or less likely to offend, this limitation meant that we were unable to assess the association between disability and offending more broadly.

41 While education-focused data is likely a valuable source of information regarding people with disability, they were not included in the NSW test case NDDA pilot study dataset as disability-focused education data were only available for young people in NSW in a small subset of the years of interest in test case.

supports and interventions.<sup>42</sup> Young people with multiple disabilities and prior adverse experiences who come into contact with the CJS are also thought to possess a particularly complex set of support needs, which may require a response spanning multiple domains and service systems (Baldry, et al., 2017). Secondly, our findings provide preliminary evidence in support of the notion that the active provision of disability services to people with disability at a younger age may prevent or delay contact with the youth justice system. While additional work is required to investigate this relationship with a deeper consideration of the factors that could not be directly observed and controlled for in this study,<sup>43</sup> the associations we identified are consistent with a growing body of evidence suggesting that the timely provision of disability services to people with disability involved with the CJS can reduce recidivism rates (Griller Clark, Mathur, & Holding, 2011; Fraser, Purcell, & Sullivan, 2014; Trofimovs, Srasuebku, Trollor, & Dowse, 2022). Thirdly, given that a significant proportion of young offenders with disability were in contact with the child protection system, programs and policies improving access to disability services and supports offered through the child protection system may have additional positive flow on effects to young people with disability who are at increased risk of involvement with the youth justice system.

Finally, we find that although rates of YOA diversion are similar for people with and without disability, many young people with disability continue to be proceeded against to court because they fail to meet the offence eligibility criteria for YOA diversion. As the profile of offending of young people with disability may be linked with impairments directly related to their disabilities (Hughes et al., 2020), this raises the question of whether these early diversionary mechanisms are appropriately considerate of the differential needs of people with disability in NSW (NSW LRC, 2012; Mental Health Commission of NSW, 2018; Royal Commission, 2020a). While there has been widespread acknowledgement of the benefits of early diversion for young people with disability, critics have pointed to the complexities of quickly and accurately identifying people with disability as a constraint to the targeted diversion of people with disability in practice.<sup>44</sup> In an attempt to address this concern, several approaches have been suggested to improve the operational identification of disability to inform decision-making. Disability-specific research has suggested best practice approaches to disability identification in government agencies is to collect self-reported information in alignment with a set of detailed standardised questions devised by subject matter experts (for example AIHW [2016]). However, data collection of this form for all people in contact with the CJS would be a costly and time intensive endeavour. Further complicating this approach, it has been suggested that many people with disability, particularly those with borderline intellectual disability, may be unaware of their disability or unlikely to self-report disability in this format (Dowse et al., 2021; JHFMHN & JJ, 2017).<sup>45</sup> Consent-conscious data sharing arrangements between agencies has been suggested as a more feasible alternative to assist police in rapidly identifying people with disability who are in repeated contact with the CJS (Jeanneret et al., 2019). The feasibility of this option is supported by evidence from our study which shows that existing data collections may be adequate to identify many people with disability prior to their first CJS contact.

The construction of the NDDA pilot Justice test case dataset demonstrates that data linkage is a viable solution to addressing the longstanding shortage of disability specific research in Australia. Making pre-linked disability-specific information available to researchers removes the administrative and costly hurdles to disability-specific research, thereby increasing the sector's capacity to evaluate and monitor policies and programs designed to better support people with disability. Without readily accessible data, policy and program practitioners will continue to develop strategies without timely feedback on what works, and the progress of many policy objectives, such as those outlined in the renewed national 10-year plan for disability services,<sup>46</sup> could remain unmeasured.

42 While our study goes some way towards considering these differences, it is unable to consider differences between people with multiple disabilities of the same type. Where research has successfully identified and examined such differences, it has produced mixed results. For example, after controlling for a variety of socioeconomic and demographic characteristics, Maclean et al. (2017) identified that although people with intellectual disability were at a statistically higher risk of child protection contact, autistic people were not. More focused research has since suggested that autistic people experience violence in childhood at a significantly higher rate than non-autistic people, and that the findings of previous work might be the result of autistic people being less likely to have confided in anyone about these experiences (Gibbs et al., 2021). Such complexities are likely to extend to the offending behaviour and records of people with disability in this study.

43 For example, family characteristics, more specific disability type, and reasons for accessing services.

44 For example, it has been suggested that the existing ability of the NSW Police Force to identify and to discern between different types of disability is poor (Dowse et al., 2021).

45 Overcoming some of these concerns, a variety of questionnaires and tools have been developed to assist CJS practitioners to assess specific disabilities more rapidly. Although these developments represent a significant improvement, the use of screening tools to identify disability at the time of police contact has previously been identified as impractical (NSW Police Force, 2011).

46 Australia's Disability Strategy 2021-2031.

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## APPENDIX

### Appendix A. Identifying the birth cohort and people with disability

**Table A1. Segmentation of birth cohort population from the NDDA pilot Justice Test Case dataset**

	Case		Comparator 2		Comparator 1	
	Disability services and CJS contact		Disability service contact only		CJS contact only	
	N	Change	N	Change	N	Change
Original	231,250	-	480,953	-	2,121,401	-
Restrict to people with CJS contact as an offender	104,711	-126,539	607,492	126,539	564,629	-1,556,772
Restrict to people born between 1997-2000	3,208	-101,503	17,974	-589,518	34,528	-530,101
Remove unlinked records	3,208	0	17,974	0	32,812	-1,716
Restrict to people with Medicare record, at least one NSW based address between 2009-2018, those aged 10+ between 2009-2018, and those under 65 years old at the beginning of 2009, not deceased prior to 2009	3,206	-2	17,523	-451	32,742	-70
Restrict to people with disability service contact in the study period and before age 18	2,137	-1,069	10,895	-6,628	33,811	1,069
Restrict to people with an offence in the study period and before age 18	1,700	-437	11,332	437	20,434	-13,377
Final study cohort	1,700	0	11,332	0	20,434	0

Note. This table progressively applies data segmentation criteria to demonstrate the extraction of study data from the NDDA Pilot dataset.

### Appendix B. Eligibility criteria and offence exclusions for YOA diversions in the birth cohort

The YOA specifies offence types and case characteristics which are ineligible to be considered for diversion. Where possible this study has identified offences known to be eligible for diversion. Broadly, ineligible offences may be described as strictly indictable offences, select sexual offences, domestic violence offences, breach offences, and driving offences (when committed by a person over the age of 15). Additionally, the YOA specifies a list of contextual requirements for illicit drug offences to be ineligible for diversion. As this eligibility depends on contextual information which is unavailable in the NDDA pilot study dataset (e.g., drug quantity), we were unable to identify which illicit drug offences met criteria for a YOA diversion, and all illicit drug offences were excluded from our measure of offences known to be eligible. In addition to offence type restrictions, the YOA requires that a young person admit guilt for their offence at the time they are charged. As information was not available regarding admission of guilt at the time of charge, guilty plea at the time of court appearance was used as a proxy for admission of guilt. Table A7 summarises these eligibility criteria as they were applied in our study. Starting from a count of total offences by disability type, each row progressively subtracts ineligible offences from the total number of offences based on the eligibility criteria described in the YOA.

For example, for the 1,700 first offences of offenders with disability, 88 offences (5%) were not eligible as they were strictly indictable offences. This was higher than the equivalent proportion of excluded offences of offenders without disability (4%). Applying the restriction to exclude select sexual offences of offenders with disability, a further 28, offences or 2% were excluded. This was more than twice the proportion of first offences of offenders without disability that were excluded on the basis of being a select sexual offence (1%). These differences between young offenders with and without disability in the proportion of

offences excluded due to YOA eligibility restrictions further extend to DV offences (5%, vs. 2%), offences with no guilt admission (5%, vs. 4%), and breach offences (2%, vs. 1%). Conversely, offenders without disability were more likely than offenders with disability to have a first-time offence excluded for driving offences over the age of 15 (6%, vs. 2%), and were more likely to have a drug offence, for which eligibility was unknown (14%, vs. 8%). Without considering these drug offences for which eligibility was unknown, young offenders with disability were more often identified as ineligible to receive a YOA diversion for their first offence than first young offenders without disability (21% of all first-time offenders, vs. 17%).

**Table B1. Eligibility criteria and exclusions for identifying YOA eligible offences in the birth cohort, by eligibility criterion**

	First offence				All offences			
	Disability		No disability		Disability		No disability	
	n	%	n	%	n	%	n	%
Total offences	1,700	100.0	20,417	100.0	5,924	100.0	44,551	100.0
Less strictly indictable offences	-88	-5.2	-833	-4.1	-533	-9.0	-3,182	-7.1
Less sexual offences	-28	-1.6	-141	-0.7	-63	-1.1	-202	-0.5
Less DV offences	-86	-5.1	-422	-2.1	-509	-8.6	-1,715	-3.8
Less driving offences over 15 years of age	-41	-2.4	-1,222	-6.0	-215	-3.6	-2,756	-6.2
Less cases with no guilt admission	-92	-5.4	-753	-3.7	-753	-12.7	-4,195	-9.4
Less breach offences	-28	-1.6	-146	-0.7	-500	-8.4	-2,494	-5.6
Less uncertain drug offence	-129	-7.6	-2,777	-13.6	-315	-5.3	-4,625	-10.4
Total ineligible offences	492	28.9	6,294	30.8	2,888	48.8	19,169	43.0
Total eligible offences	1,208	71.1	14,123	69.2	3,036	51.2	25,382	57.0

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables.

### Appendix C. Factors associated with offending by people with disability – by type of disability

Factors associated with offending by the sub-groups of young people with different disability types are presented in Tables C1, C2 and C3 for people with cognitive, physical, and psychosocial disability respectively. Adjusted odds ratio estimates (presented in column 6) were similar between sub-groups, and in the pooled estimates for all young people with disability presented in Table 2. A notable exception were odds ratio estimates for the association between different disability types and offending. From Table C1, compared to young people with cognitive disability and no cooccurring psychosocial disability, those with a cooccurring psychosocial disability were more likely to offend (OR = 1.31; 95% CI [1.13, 1.51]). Conversely compared to young people with cognitive disability and no cooccurring physical disability, those with a cooccurring physical disability were less likely to offend (OR = 0.62; 95% CI [0.53, 0.73]). Focusing on Table C2, concerning young people with physical disability, those with cooccurring psychosocial disability were similarly more likely to offend (OR = 2.06; 95% CI [1.58, 2.69]). While having a cooccurring cognitive disability was associated with lower odds of offending for young people with physical disability, this difference was not statistically significant at conventional levels (OR = 0.76; 95% CI [0.52, 1.11]). Shifting focus to Table C3, which contains results for young people with psychosocial disability, having a cooccurring cognitive disability is associated with a reduced likelihood of offending (OR = 0.66; 95% CI [0.54, 0.82]). Similarly, for young people with psychosocial disability, having a cooccurring physical disability is associated with a reduced likelihood of offending. (OR = 0.76; 95% CI [0.53, 0.90]).

**Table C1. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with cognitive disability**

	People with cognitive disability identified before age 18		People with cognitive disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
	(1)	(2)	(3)	(4)	(5)	(6)
	n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Panel A. Totals</b>						
<b>Total</b>	10,913	100.0	1,356	12.4		
<b>Panel B. Disability characteristics</b>						
<b>Disability type</b>						
Cognitive disability	10,913	100.0	1,356	12.4	1.00	
Physical disability, vs. no physical disability	4,446	40.7	327	7.4	0.62***	(0.53, 0.73)
Psychosocial disability, vs. no psychosocial disability	5,921	54.3	856	14.5	1.31***	(1.13, 1.51)
<b>Age of first disability service contact</b>						
0-9	3,073	28.2	172	5.6	0.43***	(0.35, 0.53)
10-12	3,657	33.5	502	13.7	1.00	
13-15	2,015	18.5	247	12.3	1.35***	(1.10, 1.66)
16-17	2,168	19.9	435	20.1	1.81***	(1.52, 2.15)
<b>Panel C. Sociodemographic characteristics</b>						
<b>Gender</b>						
Male	7,445	68.2	1,109	14.9	1.00	
Female	3,468	31.8	247	7.1	0.34***	(0.29, 0.41)
<b>Aboriginality</b>						
Non-Aboriginal or unknown	9,309	85.3	871	9.4	1.00	
Aboriginal	1,604	14.7	485	30.2	1.93***	(1.64, 2.27)
<b>Remoteness area of residence</b>						
Major cities	7,109	65.1	732	10.3	1.00	
Inner regional	2,940	26.9	488	16.6	1.39***	(1.19, 1.63)
Outer regional or remote	864	7.9	136	15.7	1.26*	(0.97, 1.62)
<b>Socioeconomic disadvantage (SEIFA quartile, 1=Most disadvantaged)</b>						
Quartile 1	3,402	31.2	498	14.6	0.99	(0.84, 1.18)
Quartile 2	3,093	28.3	430	13.9	0.99	(0.81, 1.20)
Quartile 3	2,371	21.7	257	10.8	0.99	(0.77, 1.27)
Quartile 4	2,047	18.8	171	8.4	1.00	
Unknown	228	2.1	55	24.1	2.16***	(1.40, 3.33)
<b>Year of birth</b>						
1997	2,662	24.4	435	16.3	1.00	
1998	2,582	23.7	322	12.5	0.77***	(0.63, 0.93)
1999	2,705	24.8	319	11.8	0.84*	(0.69, 1.01)
2000	2,964	27.2	280	9.4	0.78**	(0.64, 0.96)
<b>Panel D. Child protection and OOHC</b>						
<b>Prior<sup>a</sup> child protection reports</b>						
0	5,247	48.1	138	2.6	1.00	
1-2	1,637	15.0	152	9.3	2.56***	(1.97, 3.33)
3-6	1,328	12.2	200	15.1	2.87***	(2.09, 3.96)
7-12	926	8.5	203	21.9	3.10***	(2.05, 4.68)
13+	1,775	16.3	663	37.4	4.08***	(2.46, 6.76)

**Table C1. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with cognitive disability (cont'd)**

			People with cognitive disability identified before age 18		People with cognitive disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
			(1)	(2)	(3)	(4)	(5)	(6)
			n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Previously<sup>^</sup> identified as being at risk of primary child protection issue</b>								
At risk due to own behaviour	No		9,028	82.7	587	6.5	1.00	
	Yes		1,885	17.3	769	40.8	3.42***	(2.89, 4.05)
Carer mental health	No		9,072	83.1	883	9.7	1.00	
	Yes		1,841	16.9	473	25.7	0.75***	(0.63, 0.89)
Carer other	No		9,786	89.7	1,023	10.5	1.00	
	Yes		1,127	10.3	333	29.5	0.88	(0.73, 1.06)
Domestic violence	No		8,106	74.3	589	7.3	1.00	
	Yes		2,807	25.7	767	27.3	1.22**	(1.02, 1.46)
Carer drug or alcohol use	No		9,456	86.6	859	9.1	1.00	
	Yes		1,457	13.4	497	34.1	1.20*	(1.00, 1.44)
Emotional abuse	No		8,425	77.2	601	7.1	1.00	
	Yes		2,488	22.8	755	30.3	1.18*	(0.98, 1.42)
Neglect	No		7,935	72.7	488	6.1	1.00	
	Yes		2,978	27.3	868	29.1	1.40***	(1.15, 1.71)
Other	No		9,263	84.9	846	9.1	1.00	
	Yes		1,650	15.1	510	30.9	1.04	(0.86, 1.24)
Physical abuse	No		7,303	66.9	401	5.5	1.00	
	Yes		3,610	33.1	955	26.5	1.24*	(1.01, 1.52)
Sexual abuse	No		8,719	79.9	749	8.6	1.00	
	Yes		2,194	20.1	607	27.7	1.02	(0.86, 1.20)
<b>Previously<sup>^</sup> placed into OOHC type</b>								
Foster care	No		9,863	90.4	1,037	10.5	1.00	
	Yes		1,050	9.6	319	30.4	0.46***	(0.33, 0.65)
Kinship care	No		10,252	93.9	1,103	10.8	1.00	
	Yes		661	6.1	253	38.3	1.24	(0.92, 1.66)
Other	No		10,391	95.2	1,146	11.0	1.00	
	Yes		522	4.8	210	40.2	1.23	(0.93, 1.61)
Residential care	No		10,678	97.8	1,210	11.3	1.00	
	Yes		235	2.2	146	62.1	4.74***	(3.30, 6.80)
<b>Previous<sup>^</sup> non-continuous OOHC placements</b>								
	0		9,520	87.2	901	9.5	1.00	
	1-2		950	8.7	280	29.5	1.18	(0.80, 1.73)
	3+		443	4.1	175	39.5	1.50*	(0.94, 2.39)
<b>Constant</b>							0.03***	(0.02, 0.04)

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. <sup>^</sup> - Proportions refer to occurrences before first offence. Where a person with disability has no offence, proportions relate to occurrences before age 15, which corresponds to both the mean and median age of first offence for offenders with disability in the study. This simplifying assumption was found to have little impact on proportions and coefficient estimates in robustness checks disaggregating the regression by both disability type and age of first contact. Regression diagnostics: Pseudo R-Squared = 0.31, AUC = 0.87, N = 10,913. n – frequency; Adjusted OR – Odds Ratio; 95% CI – The 95 % confidence interval associated with the odds ratio coefficient estimate. Stars indicate statistical significance at a variety of conventional thresholds of statistical significance: \* – 10%, \*\* – 5%, \*\*\* – 1%.



**Table C2. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with physical disability**

	People with physical disability identified before age 18		People with physical disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
	(1)	(2)	(3)	(4)	(5)	(6)
	n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Panel A. Totals</b>						
<b>Total</b>	5,312	100.0	395	7.4		
<b>Panel B. Disability characteristics</b>						
<b>Disability type</b>						
Cognitive disability, vs. no cognitive disability	4,446	83.7	327	7.4	0.76	(0.52, 1.11)
Physical disability	5,312	100.0	395	7.4	1.00	
Psychosocial disability, vs. no psychosocial disability	2,369	44.6	270	11.4	2.06***	(1.58, 2.69)
<b>Age of first disability service contact</b>						
0-9	1,990	37.5	61	3.1	0.33***	(0.23, 0.47)
10-12	1,744	32.8	150	8.6	1.00	
13-15	749	14.1	75	10.0	2.11***	(1.45, 3.07)
16-17	829	15.6	109	13.1	2.06***	(1.48, 2.88)
<b>Panel C. Sociodemographic characteristics</b>						
<b>Gender</b>						
Male	3,245	61.1	317	9.8	1.00	
Female	2,067	38.9	78	3.8	0.26***	(0.19, 0.35)
<b>Aboriginality</b>						
Non-Aboriginal or unknown	4,654	87.6	242	5.2	1.00	
Aboriginal	658	12.4	153	23.3	2.70***	(2.01, 3.62)
<b>Remoteness area of residence</b>						
Major cities	3,530	66.5	206	5.8	1.00	
Inner regional	1,382	26.0	140	10.1	1.40**	(1.04, 1.87)
Outer regional or remote	400	7.5	49	12.3	1.61**	(1.05, 2.45)
<b>Socioeconomic disadvantage (SEIFA quartile, 1=Most disadvantaged)</b>						
Quartile 1	1,560	29.4	142	9.1	0.71	(0.52, 0.97)
Quartile 2	1,452	27.3	119	8.2	1.13**	(0.79, 1.61)
Quartile 3	1,214	22.9	85	7.0	0.96	(0.61, 1.53)
Quartile 4	1,086	20.4	49	4.5	1.00	
Unknown	84	1.6	14	16.7	2.40**	(1.00, 5.75)
<b>Year of birth</b>						
1997	1,207	22.7	104	8.6	1.00	
1998	1,288	24.2	101	7.8	1.05	(0.74, 1.50)
1999	1,331	25.1	99	7.4	1.11	(0.79, 1.56)
2000	1,486	28.0	91	6.1	1.06	(0.73, 1.53)
<b>Panel D. Child protection and OOHC</b>						
<b>Prior<sup>a</sup> child protection reports</b>						
0	2,806	52.8	42	1.5	1.00	
1-2	799	15.0	43	5.4	2.25***	(1.38, 3.68)
3-6	620	11.7	62	10.0	3.06***	(1.75, 5.35)
7-12	387	7.3	59	15.2	3.12***	(1.49, 6.52)
13+	700	13.2	189	27.0	3.62***	(1.41, 9.29)

**Table C2. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with physical disability (cont'd)**

			People with physical disability identified before age 18		People with physical disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
			(1)	(2)	(3)	(4)	(5)	(6)
			n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Previously<sup>^</sup> identified as being at risk of primary child protection issue</b>								
At risk due to own behaviour	No		4,671	87.9	174	3.7	1.00	
	Yes		641	12.1	221	34.5	4.40***	(3.22, 6.02)
Carer mental health	No		4,510	84.9	254	5.6	1.00	
	Yes		802	15.1	141	17.6	0.74*	(0.53, 1.02)
Carer other	No		4,826	90.9	301	6.2	1.00	
	Yes		486	9.1	94	19.3	0.81	(0.56, 1.16)
Domestic violence	No		4,101	77.2	172	4.2	1.00	
	Yes		1,211	22.8	223	18.4	1.26	(0.91, 1.73)
Carer drug or alcohol use	No		4,739	89.2	256	5.4	1.00	
	Yes		573	10.8	139	24.3	1.17	(0.84, 1.64)
Emotional abuse	No		4,345	81.8	179	4.1	1.00	
	Yes		967	18.2	216	22.3	1.49**	(1.04, 2.14)
Neglect	No		4,041	76.1	145	3.6	1.00	
	Yes		1,271	23.9	250	19.7	1.30	(0.91, 1.88)
Other	No		4,631	87.2	260	5.6	1.00	
	Yes		681	12.8	135	19.8	0.88	(0.63, 1.24)
Physical abuse	No		3,770	71.0	118	3.1	1.00	
	Yes		1,542	29.0	277	18.0	1.37*	(0.96, 1.95)
Sexual abuse	No		4,398	82.8	213	4.8	1.00	
	Yes		914	17.2	182	19.9	1.04	(0.75, 1.43)
<b>Previously<sup>^</sup> placed into OOHC type</b>								
Foster care	No		4,886	92.0	299	6.1	1.00	
	Yes		426	8.0	96	22.5	0.72	(0.38, 1.36)
Kinship care	No		5,073	95.5	325	6.4	1.00	
	Yes		239	4.5	70	29.3	1.52	(0.89, 2.58)
Other	No		5,116	96.3	345	6.7	1.00	
	Yes		196	3.7	50	25.5	0.84	(0.49, 1.46)
Residential care	No		5,215	98.2	353	6.8	1.00	
	Yes		97	1.8	42	43.3	3.30***	(1.81, 6.04)
<b>Previous<sup>^</sup> non-continuous OOHC placements</b>								
	0		4,757	89.6	268	5.6	1.00	
	1-2		394	7.4	80	20.3	0.92	(0.45, 1.89)
	3+		161	3.0	47	29.2	1.27	(0.55, 2.91)
<b>Constant</b>							0.01***	(0.01, 0.02)

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. <sup>^</sup> - Proportions refer to occurrences before first offence. Where a person with disability has no offence, proportions relate to occurrences before age 15, which corresponds to both the mean and median age of first offence for offenders with disability in the study. This simplifying assumption was found to have little impact on proportions and coefficient estimates in robustness checks disaggregating the regression by both disability type and age of first contact. Regression diagnostics: Pseudo R-Squared = 0.35, AUC = 0.90, N = 5,312. n – frequency; Adjusted OR – Odds Ratio; 95% CI – The 95 % confidence interval associated with the odds ratio coefficient estimate. Stars indicate statistical significance at a variety of conventional thresholds of statistical significance: \* – 10%, \*\* – 5%, \*\*\* – 1%.

**Table C3. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with psychosocial disability**

	People with psychosocial disability identified before age 18		People with psychosocial disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
	(1)	(2)	(3)	(4)	(5)	(6)
	n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Panel A. Totals</b>						
<b>Total</b>	7,157	100.0	1,130	15.8		
<b>Panel B. Disability characteristics</b>						
<b>Disability type</b>						
Cognitive disability, vs. no cognitive disability	5,921	82.7	856	14.5	0.66***	(0.54, 0.82)
Physical disability, vs. no physical disability	2,369	33.1	270	11.4	0.76***	(0.63, 0.90)
Psychosocial disability	7,157	100.0	1,130	15.8	1.00	
<b>Age of first disability service contact</b>						
0-9	1,737	24.3	123	7.1	0.42***	(0.33, 0.54)
10-12	2,358	32.9	382	16.2	1.00	
13-15	1,551	21.7	273	17.6	1.41***	(1.12, 1.78)
16-17	1,511	21.1	352	23.3	1.64***	(1.35, 2.01)
<b>Panel C. Sociodemographic characteristics</b>						
<b>Gender</b>						
Male	4,940	69.0	839	17.0	1.00	
Female	2,217	31.0	291	13.1	0.44***	(0.37, 0.53)
<b>Aboriginality</b>						
Non-Aboriginal or unknown	6,065	84.7	750	12.4	1.00	
Aboriginal	1,092	15.3	380	34.8	1.92***	(1.60, 2.31)
<b>Remoteness area of residence</b>						
Major cities	4,475	62.5	578	12.9	1.00	
Inner regional	2,118	29.6	434	20.5	1.49***	(1.25, 1.78)
Outer regional or remote	564	7.9	118	20.9	1.51***	(1.14, 2.00)
<b>Socioeconomic disadvantage (SEIFA quartile, 1=Most disadvantaged)</b>						
Quartile 1	2,181	30.5	415	19.0	0.98	(0.81, 1.18)
Quartile 2	2,156	30.1	385	17.9	0.89	(0.72, 1.11)
Quartile 3	1,535	21.4	201	13.1	0.81	(0.60, 1.10)
Quartile 4	1,285	18.0	129	10.0	1.00	
Unknown	169	2.4	45	26.6	1.96***	(1.18, 3.27)
<b>Year of birth</b>						
1997	1,745	24.4	335	19.2	1.00	
1998	1,687	23.6	265	15.7	0.80**	(0.64, 0.99)
1999	1,782	24.9	284	15.9	1.00	(0.81, 1.23)
2000	1,943	27.1	246	12.7	0.91	(0.73, 1.14)
<b>Panel D. Child protection and OOHC</b>						
<b>Prior<sup>a</sup> child protection reports</b>						
0	3,150	44.0	121	3.8	1.00	
1-2	1,134	15.8	125	11.0	2.21***	(1.66, 2.94)
3-6	929	13.0	163	17.5	2.72***	(1.92, 3.88)
7-12	664	9.3	176	26.5	3.18***	(2.02, 5.03)
13+	1,280	17.9	545	42.6	4.36***	(2.47, 7.69)

**Table C3. Relationship between disability types, sociodemographic characteristics, early life experiences and whether a young person with disability in the birth cohort offended before age 18, young people with psychosocial disability (cont'd)**

			People with psychosocial disability identified before age 18		People with psychosocial disability and an offence identified before age 18		Multivariate logistic regression model (outcome=offending)	
			(1)	(2)	(3)	(4)	(5)	(6)
			n	% (col)	n	% (row)	Adjusted OR	95% CI
<b>Previously<sup>a</sup> identified as being at risk of primary child protection issue</b>								
At risk due to own behaviour	No		5,693	79.5	492	8.6	1.00	
	Yes		1,464	20.5	638	43.6	3.12***	(2.58, 3.78)
Carer mental health	No		5,776	80.7	718	12.4	1.00	
	Yes		1,381	19.3	412	29.8	0.76***	(0.62, 0.92)
Carer other	No		6,348	88.7	850	13.4	1.00	
	Yes		809	11.3	280	34.6	0.83*	(0.67, 1.03)
Domestic violence	No		5,191	72.5	510	9.8	1.00	
	Yes		1,966	27.5	620	31.5	1.12	(0.92, 1.37)
Carer drug or alcohol use	No		6,139	85.8	728	11.9	1.00	
	Yes		1,018	14.2	402	39.5	1.13	(0.92, 1.40)
Emotional abuse	No		5,298	74.0	498	9.4	1.00	
	Yes		1,859	26.0	632	34.0	1.11	(0.90, 1.37)
Neglect	No		5,121	71.6	423	8.3	1.00	
	Yes		2,036	28.4	707	34.7	1.43***	(1.15, 1.78)
Other	No		6,002	83.9	717	11.9	1.00	
	Yes		1,155	16.1	413	35.8	1.00	(0.81, 1.23)
Physical abuse	No		4,608	64.4	335	7.3	1.00	
	Yes		2,549	35.6	795	31.2	1.31**	(1.04, 1.64)
Sexual abuse	No		5,532	77.3	625	11.3	1.00	
	Yes		1,625	22.7	505	31.1	0.89	(0.74, 1.08)
<b>Previously<sup>a</sup> placed into OOHC type</b>								
Foster care	No		6,474	90.5	869	13.4	1.00	
	Yes		683	9.5	261	38.2	0.51***	(0.34, 0.75)
Kinship care	No		6,694	93.5	924	13.8	1.00	
	Yes		463	6.5	206	44.5	1.28	(0.91, 1.80)
Other	No		6,792	94.9	953	14.0	1.00	
	Yes		365	5.1	177	48.5	1.31	(0.93, 1.84)
Residential care	No		6,984	97.6	1,005	14.4	1.00	
	Yes		173	2.4	125	72.3	5.96***	(3.87, 9.18)
<b>Previous<sup>a</sup> non-continuous OOHC placements</b>								
	0		6,228	87.0	759	12.2	1.00	
	1-2		609	8.5	221	36.3	1.14	(0.72, 1.78)
	3+		320	4.5	150	46.9	1.42	(0.83, 2.44)
<b>Constant</b>							0.04**	(0.03, 0.06)

Note. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. <sup>a</sup> - Proportions refer to occurrences before first offence. Where a person with disability has no offence, proportions relate to occurrences before age 15, which corresponds to both the mean and median age of first offence for offenders with disability in the study. This simplifying assumption was found to have little impact on proportions and coefficient estimates in robustness checks disaggregating the regression by both disability type and age of first contact. Regression diagnostics: Pseudo R-Squared = 0.28, AUC = 0.86, N = 7,157. n - frequency; Adjusted OR - Odds Ratio; 95% CI - The 95 % confidence interval associated with the odds ratio coefficient estimate. Stars indicate statistical significance at a variety of conventional thresholds of statistical significance: \* - 10%, \*\* - 5%, \*\*\* - 1%.

## Appendix D. Youth diversion rates, court outcomes, and penalties for all offences before the age of 18 committed by young offenders in the birth cohort with and without disability

**Table D1. Number and proportion of all offences of young people in the birth cohort before age 18, by the presence and type of disability, and offence type**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
<b>Panel A. ANZSOC divisions</b>										
Acts intended to cause injury (02)	8,228	18.5	1,194	24.9	320	26.7	1,078	28.1	1,452	24.5
Sexual assault and related offences (03)	481	1.1	88	1.8	22	1.8	57	1.5	95	1.6
Dangerous or negligent acts endangering persons (04)	545	1.2	39	0.8	<10	<0.8	22	0.6	46	0.8
Abduction, harassment, and other offences against the person (05)	329	0.7	38	0.8	<10	<0.8	28	0.7	46	0.8
Robbery, extortion, and related offences (06)	1,009	2.3	130	2.7	24	2.0	102	2.7	157	2.7
Unlawful entry with intent/burglary, break and enter (07)	3,130	7.0	441	9.2	104	8.7	285	7.4	535	9.0
Theft and related offences (08)	10,712	24.0	917	19.1	228	19.0	663	17.3	1,156	19.5
Fraud, deception, and related offences (09)	510	1.1	35	0.7	11	0.9	33	0.9	49	0.8
Illicit drug offences (10)	4,240	9.5	195	4.1	60	5.0	186	4.8	267	4.5
Prohibited and regulated weapons and explosives offences (11)	1,042	2.3	105	2.2	13	1.1	75	2.0	122	2.1
Property damage and Environmental pollution (12)	4,710	10.6	583	12.1	149	12.4	483	12.6	723	12.2
Public order offences (13)	3,518	7.9	331	6.9	87	7.3	288	7.5	432	7.3
Traffic and vehicle regulatory offences (14)	2,555	5.7	162	3.4	28	2.3	105	2.7	190	3.2
Offences against justice procedures, government security and government operations (15)	3,260	7.3	511	10.6	129	10.8	406	10.6	618	10.4
<b>Panel B. Offence type categorisations</b>										
Violent offences	8,712	19.5	1,282	26.7	342	28.5	1,135	29.6	1,547	26.1
Property fraud offences	14,352	32.2	1,393	29.0	343	28.6	981	25.6	1,740	29.4
Domestic Violence offences	4,021	9.0	781	16.3	216	18.0	699	18.2	925	15.6
Non-traffic offences	42,021	94.3	4,638	96.6	1,170	97.7	3,733	97.3	5,734	96.8
<b>All offences</b>	<b>44,576</b>	<b>100.0</b>	<b>4,800</b>	<b>100.0</b>	<b>1,198</b>	<b>100.0</b>	<b>3,838</b>	<b>100.0</b>	<b>5,924</b>	<b>100.0</b>

Note. ANZSOC code offence categorisations reported in brackets. Violent offences relate to ANZSOC codes 02 and 03. Property offences refer to 7, 8, and 9. DV offences refer to those with DV flag="Y" in ROD. Non-traffic offences relate to those without ANZSOC 14. As a privacy preserving measure, offences with ANZSOC codes 16 are not included. Tables 3, 4, 5, and 6 are reproduced in the Appendix tables A3, A4, A5, and A6 considering all offences prior to age 18. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Cognitive, physical, and psychosocial groups are not mutually exclusive. Censoring has been applied to cells with counts less than 10.

**Table D2. Diversion rates for all offences of offenders in the birth cohort before age 18, by disability type and whether the offence was eligible for diversion**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
<b>Panel A. Offence type eligible for a YOA diversion</b>										
YOA diversion	21,371	84.2	1,906	79.1	509	80.7	1,600	80.8	2,414	79.5
Proceeded to court	4,011	15.8	503	20.9	122	19.3	380	19.2	622	20.5
<b>Total</b>	<b>25,382</b>	<b>100.0</b>	<b>2,409</b>	<b>100.0</b>	<b>631</b>	<b>100.0</b>	<b>1,980</b>	<b>100.0</b>	<b>3,036</b>	<b>100.0</b>
<b>Panel B. Offence type ineligible for a YOA diversion, or offence eligibility unknown</b>										
YOA diversion	4,489	23.4	232	9.7	74	13.1	209	11.2	307	10.6
Proceeded to court	14,680	76.6	2,159	90.3	493	86.9	1,649	88.8	2,581	89.4
<b>Total</b>	<b>19,169</b>	<b>100.0</b>	<b>2,391</b>	<b>100.0</b>	<b>567</b>	<b>100.0</b>	<b>1,858</b>	<b>100.0</b>	<b>2,888</b>	<b>100.0</b>

*Note.* Eligible offences mirror the legislated requirements under the YOA, as described in Appendix table A6. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Cognitive, physical, and psychosocial groups are not mutually exclusive.

**Table D3. Court outcome for all offences of offenders in the birth cohort before age 18, by disability type and whether the offence type was eligible for dismissal**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
<b>Panel A. Offence type eligible for a MHA dismissal (not strictly indictable offence)</b>										
MHA dismissal	253	1.5	211	9.0	61	11.0	206	11.3	247	8.8
Not guilty	1,071	6.5	148	6.3	38	6.9	109	6.0	176	6.2
Withdrawn or otherwise	545	3.3	86	3.7	25	4.5	70	3.9	111	3.9
Guilty	14,607	88.7	1,895	81.0	429	77.6	1,431	78.8	2,288	81.1
<b>Total</b>	<b>16,476</b>	<b>100.0</b>	<b>2,340</b>	<b>100.0</b>	<b>553</b>	<b>100.0</b>	<b>1,816</b>	<b>100.0</b>	<b>2,822</b>	<b>100.0</b>
<b>Panel B. Offence type ineligible for a MHA dismissal (strictly indictable offence)</b>										
MHA dismissal	<15	<0.7	16	5.0	<15	<24.2	<15	<7.1	19	5.0
Not guilty	233	10.5	35	10.9	<15	<24.2	26	12.3	41	10.8
Withdrawn or otherwise	144	6.5	21	6.5	<15	<24.2	<15	<7.1	23	6.1
Guilty	1,825	82.4	249	77.6	48	77.4	165	77.8	297	78.2
<b>Total</b>	<b>2,215</b>	<b>100.0</b>	<b>321</b>	<b>100.0</b>	<b>62</b>	<b>100.0</b>	<b>212</b>	<b>100.0</b>	<b>380</b>	<b>100.0</b>

*Note.* Ineligible offences under the MHA refer to strictly indictable offences. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Cognitive, physical, and psychosocial groups are not mutually exclusive. Censoring has been applied to cells with counts less than 15.



**Table D4. Court penalty imposed for all offences of young offenders in the birth cohort before age 18, by disability type**

	Disability type									
	None		Cognitive		Physical		Psychosocial		Any	
	n	%	n	%	n	%	n	%	n	%
Custody	1,450	8.8	269	12.5	46	9.6	171	10.7	318	12.3
Supervised community sentence	5,809	35.4	897	41.8	183	38.4	641	40.2	1,063	41.1
Unsupervised community sentence	2,317	14.1	301	14.0	77	16.1	243	15.2	375	14.5
Fines	1,948	11.9	133	6.2	26	5.5	89	5.6	157	6.1
Conditional release without conviction	1,415	8.6	114	5.3	30	6.3	100	6.3	141	5.5
Other*	3,493	21.3	430	20.1	115	24.1	352	22.1	531	20.5
<b>Total</b>	<b>16,432</b>	<b>100.0</b>	<b>2,144</b>	<b>100.0</b>	<b>477</b>	<b>100.0</b>	<b>1,596</b>	<b>100.0</b>	<b>2,585</b>	<b>100.0</b>

*Note.* Other refers to Conviction only, Other, and No conviction recorded. Minor data perturbation has been applied to prevent identification through group differencing, as a result, grouped columns may not sum to totals within or between tables. Cognitive, physical, and psychosocial groups are not mutually exclusive.