



A Right to Learn: Economic cost of suspensions for Queensland students with disability

Summary of findings

Queensland Advocacy for Inclusion

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Key findings

1. **Children with disability are disproportionately represented in school suspensions in Queensland and across Australia. Data suggests this affects children across all school years, starting from kindergarten and primary school up to the end of secondary school.**
 - a. 13.9% of Queensland children with NCCD status (16,154 students) had short suspensions compared to 6.9% of the overall child population in 2022.
 - b. NSW Department of Education statistics suggest that the difference in suspension rates for children with disability relative to other children exists across all school years, and that it is particularly high in the primary school years. In Semester 1, 2021, 2.5% of children with NCCD disability status in years K-2 and 5.0% of children with NCCD status in years 3-6 received short suspensions, compared to 0.5% of all children in years K-2 and 1.3% of all children in years 3-6.
 - c. NDIS participant outcome statistics suggest that suspensions accumulate for children with disability across their schooling period. Around 26% of surveyed NDIS participants had been ever suspended from school by year 10, with 18% ever suspended by Year 6.
2. **Suspensions and exclusions have adverse impacts on the mental health and wellbeing of children and young people with disability.**

A number of studies drew on interviews and surveys of students who had been suspended to highlight that children and young people reported feeling increased levels of anxiety and depression as a result of social humiliation and isolation due to exclusion and suspension. The Disability Royal Commission's report into inclusive education highlighted that "students subject to multiple suspensions can be at heightened risk of complete disengagement from education".
3. **Suspensions and exclusions can also negatively impact the employment of parents/carers, classroom teaching and wellbeing of teachers, and draw on limited school resources.**

Studies highlighted that parents and carers face challenges in maintaining employment while supporting suspended children at home. Children with disability are more likely to come from sole parent households where these financial impacts can be even more acute. Other studies highlighted the adverse impact on the time teachers have available to instruct classrooms as well as their own health and wellbeing if they are insufficiently supported. Additional school resources are spent on responding to suspensions and subsequent behaviour management strategies.
4. **Research in Australia and overseas suggests suspensions have a negative association with subsequent youth offending and educational attainment.** Assuming these impacts are similar for children with disability, we estimated that for the 16,118 Queensland students with NCCD status expected to be suspended in 2023:
 - a. **An estimated 2,900 will not achieve year 12 educational levels** due to the impact of school disengagement (over and above the average Year 12 non-completion rate for other children with NCCD status)
 - b. **An estimated 310 will have Youth Justice involvement by age 18**, including up to 160 with Youth Justice detention orders
5. **Youth offending and education impacts have immediate and longer term economic costs.**

For school aged students, impacts attributed to suspensions and school disengagement are associated with estimated costs of up to \$20-24m per year:

 - a. An estimated \$14.1m in lost family income per year
 - b. An estimated \$5.5-10.0m in Youth Justice system costs per year

In the longer run, we estimated an average annual income gap of around \$41m per year for students with disability and suspensions not attaining year 12 educational levels. Research indicates that education is strongly associated with subsequent employment and income rates across the adult life course. Studies suggest the potential for longer term impacts in other life course domains including increased likelihood of adult criminal justice system contact and adverse health and wellbeing impacts from reduced income and employment.

Key sources:

1a. Queensland Department of Education statistics on suspensions, exclusions and cancellations for student categories, provided to QAI
1b. NSW Department of Education (2021). *Suspensions and Expulsions Semester 1 2017-2021*. Sourced from https://data.cese.nsw.gov.au/data/dataset/c0a90a6f-2509-45c5-ba77-cf5b00350043/resource/7d039678-7527-4744-93a5-e162aa74de11/download/2021_suspension-and-expulsion-factsheet_vr_v2_aa.pdf.

1c. National Disability Insurance Agency (2021). *NDIS Participant Outcomes 30 June 2020: Baseline participant outcomes for ages 0-14* report. Sourced from <https://data.ndis.gov.au/media/2526/download?attachment>.
3. - Australian Institute of Health and Welfare (2024) *People with disability in Australia. Income Table INCM19*. Other key sources outlined in section 3 of this document
2, 4, 5. - Key sources outlined in sections 3 and 4 of this document

Approach overview

Our modelling approach focused on quantifying:

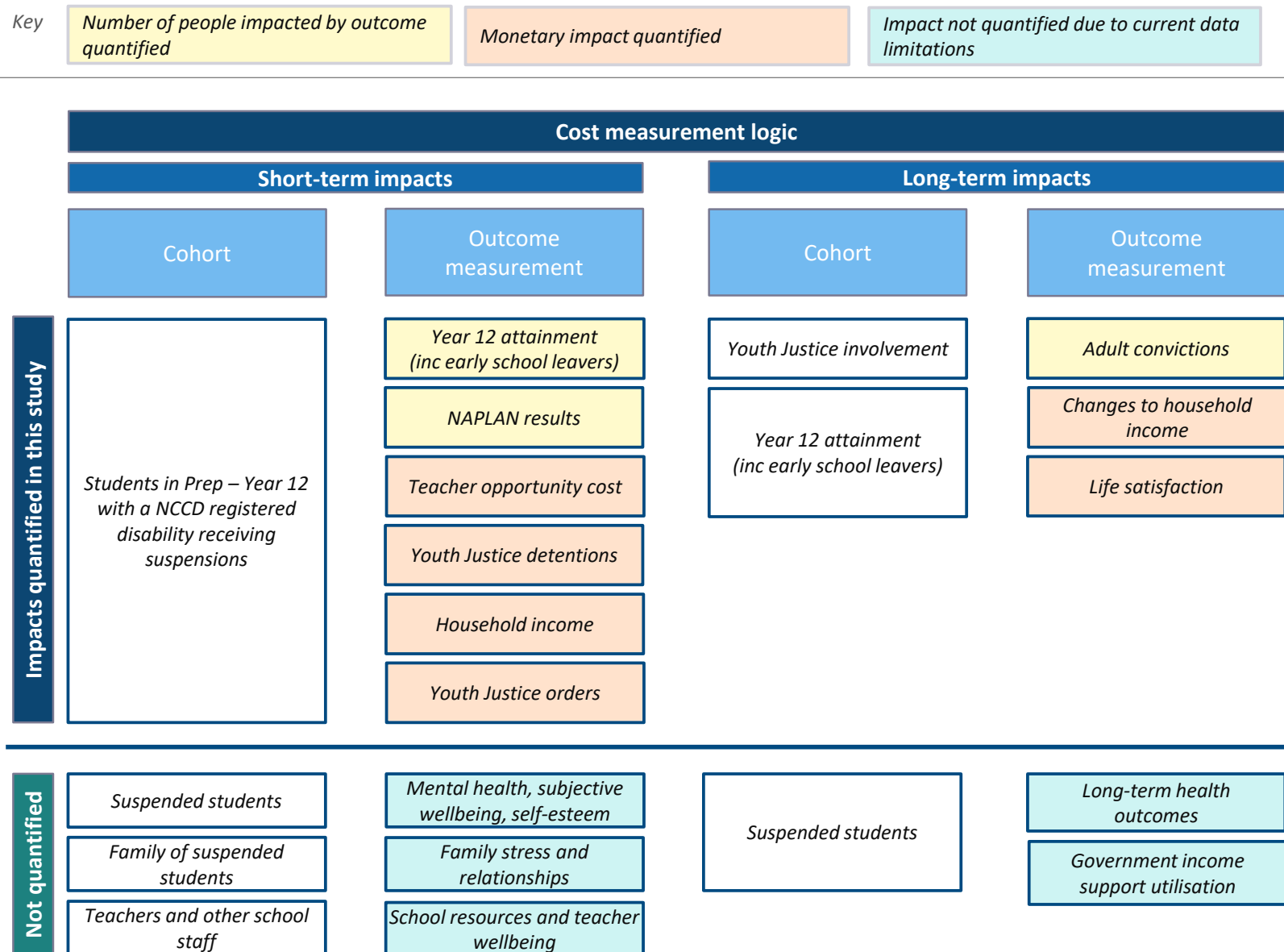
- ▶ **The cohort affected by school disengagement** (for which suspensions are assumed to be a proxy indicator)
- ▶ **Short term impacts of school disengagement - impacts experienced during the schooling period**
- ▶ **Longer term economic costs associated with suspensions - impacts experienced during adulthood**

The diagram on this page summarises the main impacts highlighted in the studies from our research scan¹, the links assumed between shorter term outcomes and longer term impacts, and the elements used to calculate short and longer term impacts that were measured in this analysis.

It is also important to acknowledge that impacts not quantified in this analysis due to data limitations are still significant to students and their families and will be associated with economic or broader social costs.

For instance, the research base highlights differences in the health status of populations with lower levels of educational attainment; economic costs arise to the extent this is directly attributable to lower education attainment and income flowing on from school disengagement.

Note 1: The outcomes outlined here are not an exhaustive list of all potential short term and long term impacts associated with suspensions, school disengagement and life course impacts from reduced educational attainment.



Approach overview

Quantified short-term impacts are driven by:

- **The amount of schooling days lost by students and subsequent impacts on learning and development**, and the employment time given up by parents/carers to look after suspended children and respond to subsequent schooling implications following suspensions and exclusions.
- **The number of students who are more likely to interact with Youth Justice Services, measured by students receiving suspensions and exclusions**, and the cost associated with Youth Justice detentions for those students.

We also estimated the opportunity costs to teachers from time spent managing student behaviour rather than classroom instruction, and the number of students with disability and suspensions expected to achieve NAPLAN levels at or below National Minimum Standards. Other short-term impacts not quantified in this analysis include adverse impacts on student and family mental health and wellbeing, teacher stress and wellbeing and school resources required to respond to subsequent implications from suspensions.

Quantified long-term impacts are driven by:

- **Lower levels of educational attainment** which are associated with longer term reductions in employment and income across the adult life course. This can also contribute to increased rates of Government income support and other outcomes such as lower levels of health and a greater likelihood of contact with the adult criminal justice system.

We also estimated the potential impacts on life satisfaction from longer term differences in employment and income, and the number of young people involved with Youth Justice services who potentially proceed to have interactions with the adult Justice custodial system. These are categorised under 'other impacts' in our calculations.

We have also highlighted some of the social impacts associated with children with disability experiencing suspensions, their parents/caregivers and teachers, but recognise that there may be many more potential impacts which we have not explored in this study due to the focus on economic impacts or unavailable data. It is important to acknowledge these impacts can be significant to the children and young people affected even if not currently quantifiable with the data available or associated with a monetary impact.

Key assumptions that have been taken in the approach due to the significant limitations in data available

1. **The cost estimates in sections 1-4 of this document should be treated as the 'maximum' or upper range of economic costs that may be associated with suspensions for children with disability, as they assume that 100% of the short term and longer term life course impacts experienced by students with disability and suspensions can be directly attributed to suspensions and underlying school disengagement.**

In practice it is likely that these impacts are partially, but not fully, attributable to school disengagement - other characteristics of these children and young people, their families, schools and community will also likely contribute.

2. **Impacts associated with suspensions are assumed to be driven by underlying school disengagement and behavioural challenges, with suspensions a proxy indicator for these underlying challenges being experienced by children and young people.** A reduction in recorded suspensions that is not accompanied by an improvement in student engagement with their school and learning is not expected to lead to any change in life course impacts, or any monetised benefits to individuals or government.
3. **We assume that the Queensland cohort is comparable to broader Australia as well as different state jurisdictions.** Where available, we use studies and statistics that are taken from the Queensland population but due to limitations in publicly available data, we also reference studies from other state jurisdictions or with national data.
4. **We assume that the impact of suspensions is the same for students with disability as it is for other students, due to limitations in the data available.** This may be different to actual experience, as students with disability have different experiences to those without across a range of different outcomes.

1a. Summary of economic costs

The table below summarises estimated short-term and long-term economic costs per year for the 2023 cohort of Queensland students across Prep to Year 12.

- Short term impacts:** We estimated the number of additional students with disability who are not expected to achieve Year 12 school leaving qualifications due to their suspension history and disengagement with schooling, over and above the expected proportion of students with disability without Year 12 achievement. For estimating the cost of offending and Youth Justice interactions, we have focused on Youth Justice detentions and supervised orders as the most costly form of interaction. Parent/carer opportunity costs are taken to be a proxy for a loss in productivity with absences from work. Loss of teacher classroom instruction time has also been calculated as a proxy to a loss of productivity in the classroom although this is not considered a marginal cost.
- Long term impacts:** The average annual income gap (for the additional students with disability who do not attain Y12 educational qualifications) is a proxy of the combined loss to government taxation and a loss in individual disposable income.

Cohort	Number	
Number of Prep to Year 12 students in Queensland with a disability who receive short suspensions each year	16,118	<i>Based on the number of Queensland students with an NCCD verified disability who received short suspensions in 2023. See Reference 1 in Section 4 for more details.</i>
Short term impacts (per year)	Amount / Cost	
Annual parent/carer opportunity cost	\$14.1m	<i>Assumes that for the full duration of the suspension, the child stays with a carer all of the time and that the 70.9% of carers with employment must take time off work for this duration. See Reference 2 in Section 4 for the source information and further details.</i>
Number of students not completing Year 12	2,917	<i>Assumes that 18.1% of students with disability receiving short suspensions would have otherwise completed Year 12 if they were positively engaged with schooling. See Reference 6 in Section 4 for more details.</i>
Short term impacts (for suspended students aged 14-17 per year)	Cost	
Youth Justice detention costs ¹	\$4.1 - 7.4m	<i>Assumes that suspensions have a 100% attribution factor associated with increased offending and Youth Justice system contact. The majority of young people in contact with the Youth Justice system are aged 14-17. Refer to section 5 for alternative estimates based on partial attribution assumptions.</i>
Youth Justice community-based supervision order costs ²	\$1.4 - 2.6m	
Long term impact (per year)	Cost	
Average annual income gap for suspended students with disability who do not complete Year 12 (per person)	\$14,105	<i>Assumes that Year 12 completion has a 100% attribution factor for subsequent differences in earning capacity and employability, relative to people who do not have Year 12 school leaving qualifications. Refer to section 5 for alternative estimates based on partial attribution assumptions.</i>
Average annual income gap for all students with disability and suspensions who do not complete Year 12	\$41.1m	

1. Estimated costs associated with approximately 11-19 students receiving detention orders, or 20-35 detention orders a year

2. Estimated costs associated with approximately 20-35 students receiving community-based supervision orders, or 24-45 community-based supervision orders a year. Note young people with detention orders will also commonly have supervision order history and may contribute to both categories.

1b. Summary of other impacts

The table below summarises other impacts relating to both the short-term and long-term, for the 2023 cohort of Queensland students across Prep to Year 12.

- **Short term impacts:** Teacher opportunity costs relate to instructional time used by teachers to manage disruptive student behaviour. The Youth Justice costs allocated here relate to the broader Youth Justice orders which include both sentenced and unsentenced community-based supervision as well as remand and sentenced detentions.
- **Long term impacts:** Young people who have interactions with the youth justice system are also more likely to have future interactions with the adult criminal justice system. There are also associated subjective wellbeing costs from unemployment that impact individuals in the long term.

Cohort	Number	
Number of Prep - Year 12 students in Queensland with a disability receiving short suspensions in 2023	16,118	<i>Based on the number of Queensland students with an NCCD verified disability who received short suspensions in 2023. Note these impacts will also be applicable to the small subset of students who receive long suspensions without any preceding short suspensions in each year. See Reference 1 in Section 4 for more details.</i>
Short term impacts		Amount / Cost
Teacher opportunity cost	440,664 hours (\$20.1m)	<i>Assumes that 100% of time used by teachers to manage disruptive classrooms come from students that are receiving suspensions. Refer to section 5 for alternative estimates based on partial attribution assumptions. See Reference 3 and 7 in Section 4 for more details.</i>
Number of students in Year 9-12 with a disability and short suspensions estimated to achieve NAPLAN proficiency bands at or below the National Minimum Standard in Year 9	2,759	<i>Assumes that suspensions hold a 100% attribution factor to NAPLAN outcomes. Refer to section 5 for alternative estimates based on partial attribution assumptions.</i>
Long term impacts		Amount / Cost
Additional young people with disability and suspensions expected to have contact with the Adult Justice custodial system	65 - 117	<i>Assumes that 13% of all youth offenders go on to have an adult prison conviction. See Reference 12 in Section 4 for more information.</i>
Estimated annual cost of unemployment on life satisfaction for students with disability not completing Year 12	\$2.1m	<i>Assumes that unemployment creates a drop in life satisfaction of -0.5 points for people with disability per year of unemployment. See Section 3 for more information.</i>

2a. Calculation approach: Short term costs - Youth Justice (1/3)

Overview

Research from Queensland and other state jurisdictions show that young people with diagnosed or suspected disability, as well as young people with suspension history and school disengagement, are overrepresented in offending and Youth Justice populations. There is also extensive evidence to support the link between Youth Justice and Adult Justice involvement.

However, key challenges remain when trying to use the existing research to quantify the impact of student behavioural issues and school disengagement on subsequent Justice system interactions, including students with disabilities. In this situation suspensions are assumed to be a proxy indicator of behavioural and school disengagement issues.

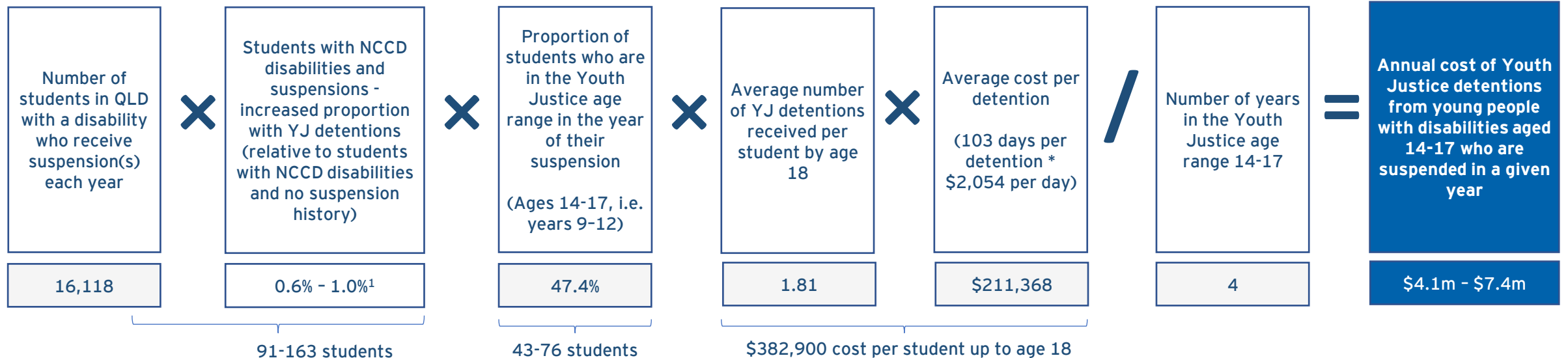
Calculation approach

The cost of Youth Justice involvement for Queensland students with disability and suspensions in a given year has been estimated on the basis outlined below and in the Appendix.

We have focused on Youth Justice detention and supervision order costs to determine the short term Justice costs associated with students with disability and suspensions, as these are likely to represent the largest component of offending related costs. We acknowledge there are also broader costs of crime borne by Police, Courts and the broader population.

- Number of students with NCCD disabilities suspended in a given year who are estimated to have YJ detention contact by age 18 (over and above the estimated number for students with disabilities but no suspensions) - 91 to 163
- Number of students with NCCD disabilities who are in the Youth Justice age range in the year of their suspension (assumed to be ages 14-17) - 43 to 76
- Estimated total YJ detention costs up to age 18 per young person with NCCD disabilities, suspensions and YJ detention involvement - \$382,900 (2023-24 levels)
- Estimated annual YJ detention costs associated with young people with NCCD disabilities who are suspended in a given year - \$4.1 - 7.4m (2023-24 levels)

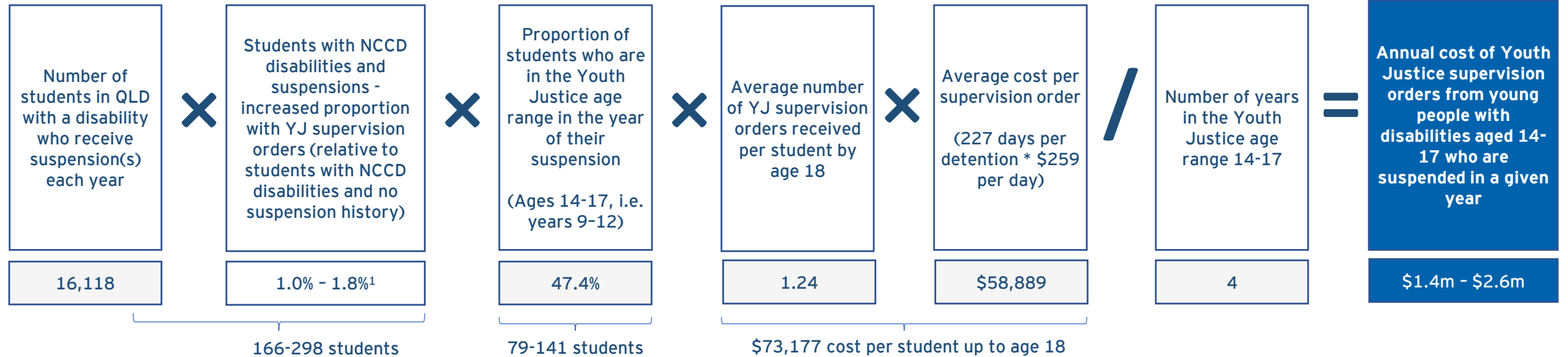
Youth Detention costs



1. See Appendix for detailed view

2a. Calculation approach: Short term costs - Youth Justice (2/3)

Youth Justice supervision order costs



1. See Appendix for detailed view

2a. Calculation approach: Short term costs - Youth Justice (3/3)

Considerations and limitations

Key challenges remain when trying to use the existing research to quantify the impact of student behavioural issues and school disengagement on subsequent Justice system interactions, including students with disabilities. In this situation suspensions are assumed to be a proxy indicator of behavioural and school disengagement issues.

These challenges include:

- Wide variation in the disability cohorts analysed by studies, amplified by different attempts to capture disability severity or a focus on specific disability types. For example, Queensland Education reports a 6% and 20% disability prevalence rate when using EAP and NCCD definitions of disability respectively. In comparison:
 - The NSW NDDA Youth Justice pilot study reported 3.5% of its population with a disability indicator (based on interaction with specific disability support services)
 - Queensland Youth Justice census surveys report on the proportion of young people with FASD or suspected disability, and NSW Youth Justice census surveys report on the proportion of young people with suspected cognitive disability - elements which do not fully overlap with the EAP and NCCD definitions.
- Except for the NSW NDDA Justice pilot study, all other studies involve point-in-time analysis. This does not fully support estimates of lifetime involvement with Youth and Adult Justice systems as a considerable proportion of young offenders will cycle through these systems over multiple years.
- Differences in Youth Justice systems and populations across state jurisdictions and over time. These estimates are based on assumptions informed by birth cohort studies from other jurisdictions as well as more recent Queensland statistics and should be interpreted with care.
- Differences in the definition of Youth Justice involvement analysed by studies (ranging from all offending to Youth Justice custody/detention only).

Other approach limitations and areas for consideration:

- Youth Justice census surveys from NSW and Victoria over recent years have observed that 60 - 94% of people under Youth Justice supervision, or in detention, have had prior school suspensions¹. These observations suggest that in practice suspensions may possibly have a higher correlation with Youth Justice system involvement.
- The NDDA Justice study highlights that Justice system involvement varies considerably by disability type - for example, young people with psychosocial disabilities are heavily overrepresented in the offending cohort, whereas young people with physical disability only have rates of offending closer to other young people without disability.
- Frequency of suspensions is likely also an important factor. Young people with multiple suspensions are likely to have a higher likelihood of Justice system involvement. For example - a NSW Youth Justice census study in 2015 observed that 94% of the young people in detention had suspension history and 78% had had repeat suspensions.

1. Queensland Youth Justice census surveys do not include questions around previous suspension history. They do, however, indicate that a high proportion of people under Youth Justice supervision are "totally disengaged from education, training, or employment" (45-55% of respondents over 2018 to 2022 surveys)

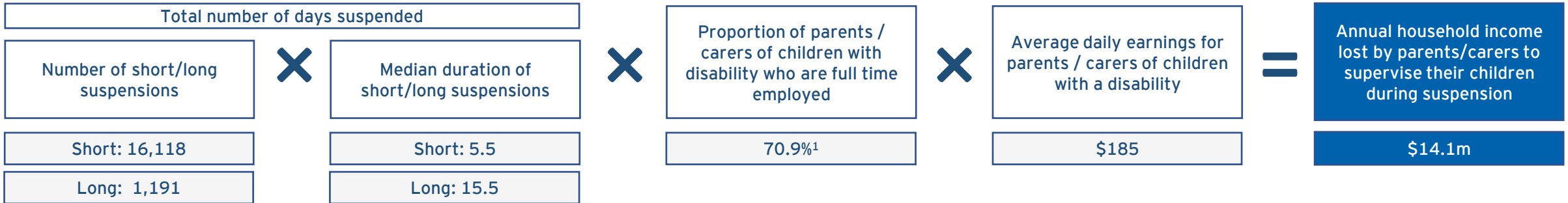
2a. Calculation approach: Short term costs - Parent/carer opportunity costs

The figure below outlines the calculation approach used to estimate short term costs to parents and carers. The underlying assumptions can also be found in the following pages.

Cohort



Parent/Carer opportunity cost



Key sources:

1. See Reference 2 in Section 4 for more details

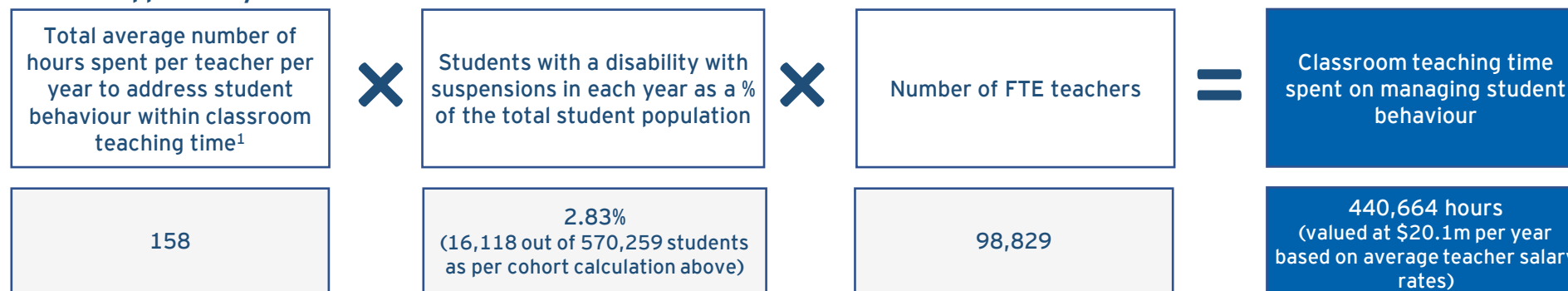
2a. Calculation approach: Other short term impacts

The figure below outlines the calculation approach used to estimate short term impacts on the opportunity costs associated with teacher time spent addressing student behaviour rather than classroom instruction. The underlying assumptions can be found in the appendix of this document.

Cohort



Teacher opportunity cost



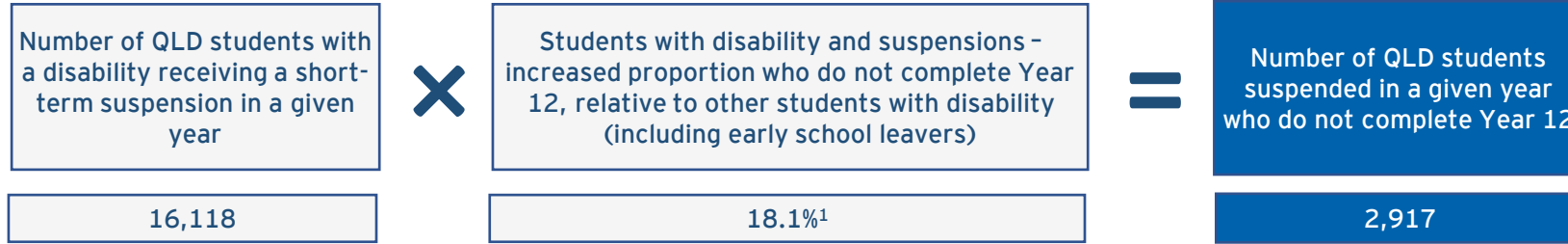
Key sources:

1. See Reference 7 in Section 4 for more details

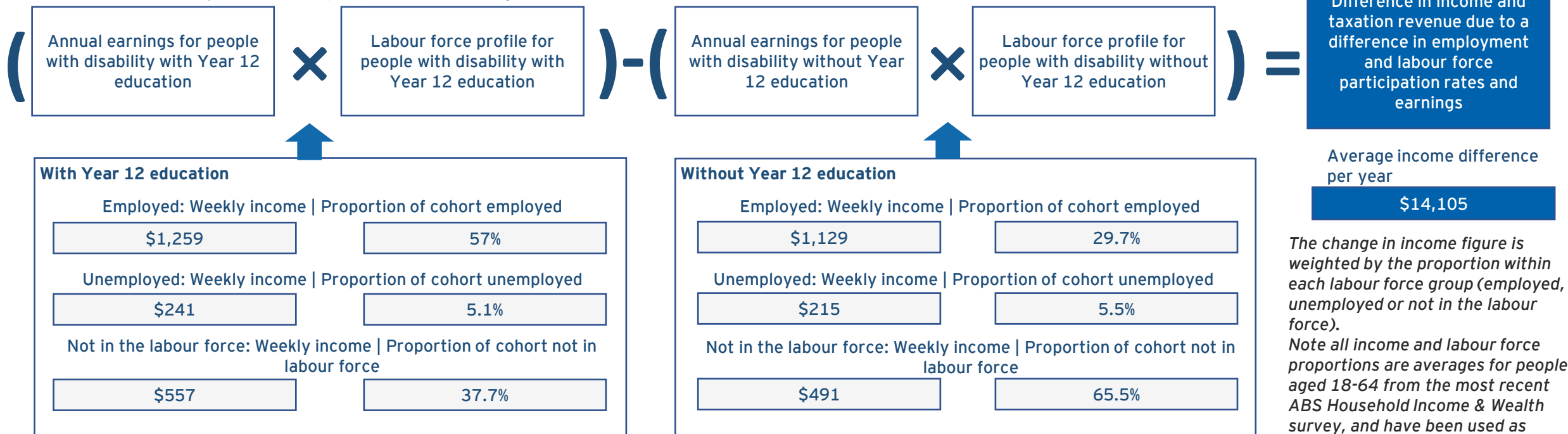
2b. Calculation approach: Long term costs - Employment and income

The figure below outlines the calculation approach used to estimate longer term economic costs of lower employment and income from reduced Year 12 educational attainment. The underlying assumptions can also be found in the following pages.

Cohort



Difference in average income for people with disability who have / do not have Year 12 education levels



The change in income figure is weighted by the proportion within each labour force group (employed, unemployed or not in the labour force).

Note all income and labour force proportions are averages for people aged 18-64 from the most recent ABS Household Income & Wealth survey, and have been used as estimates for the average earnings and labour force participation rates over the 2023 cohort's adult life.

Key sources:

1. See Reference 6 in Section 4 for more details

2b. Calculation approach: Other long term impacts

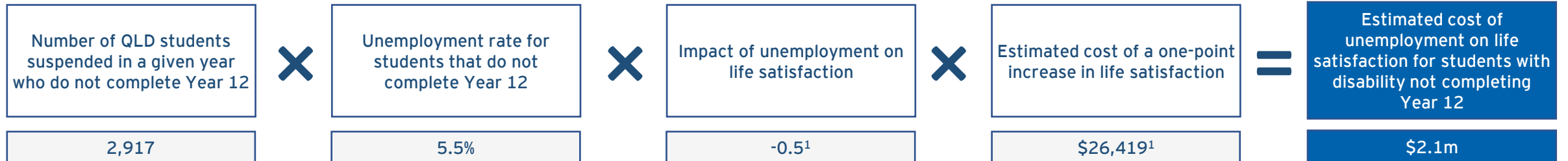
The figure below outlines the calculation approach used to estimate long term impacts on the costs associated with a decrease in life satisfaction resulting from increased unemployment.

We have also estimated the number of young people with disability and suspensions who may be expected to have contact with the adult Justice custodial system as a result of their youth offending, but have not attempted to estimate the monetary impact due to gaps in the available data exploring the links between school suspensions and adult Justice system involvement. We note there are a number of studies which examine the extent to which Youth Justice system involvement is associated with adult Justice system involvement, and some which highlight the overrepresentation of people with specific disability types in the adult Justice system.

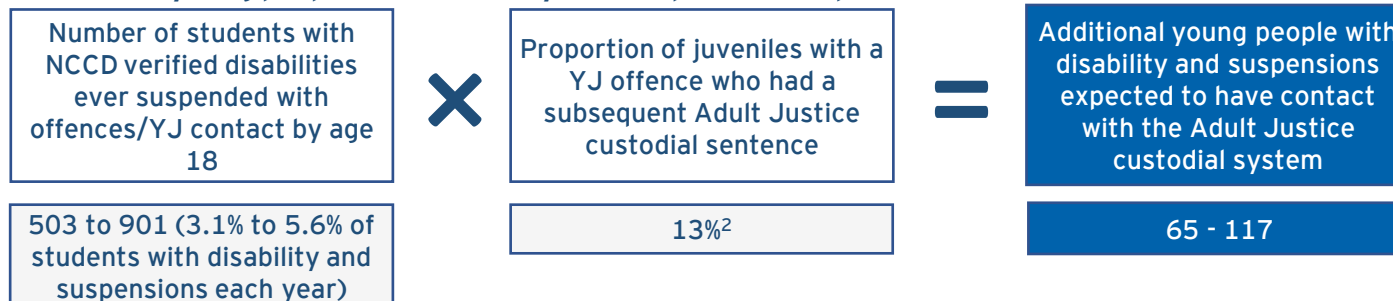
Cohort



Decrease in life satisfaction



Additional young people with disability and suspensions expected to have contact with the Adult Justice custodial system



Key sources:

1. See Section 3 for more details;

2. See Reference 12 Section 4 for more details

3. Non-quantified impacts

The table below outlines a number of other impacts that were highlighted from studies in the research scan. Some of these impacts are social impacts (and therefore not easily monetised) while others were not quantifiable due to limited quantitative data available. However, several were called out in interviews and surveys of children, young people, parents/carers and teachers and are important considerations when considering the impact of suspensions and school disengagement over the short and longer term.

Summary	Impact	Example data sources
Short term impacts		
Mental health, subjective wellbeing and educational outcomes	<p>A number of studies drew on interviews and surveys of students who had been suspended to highlight that children and young people reported feeling increased levels of anxiety and depression as a result of social humiliation and isolation due to exclusion and suspension.</p> <p>For example, the Disability Royal Commission’s report into inclusive education highlighted that “students subject to multiple suspensions can be at heightened risk of complete disengagement from education” and during public hearings they “had heard about students feeling isolated and excluded and being denied opportunities for academic attainment and social development. Feelings of frustration can lead to reduced self-esteem and confidence. This can hinder the acquisition of the skills, competencies and social networks the students require for successful transition to adulthood.”</p>	<p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2021). Final Report - Volume 7: Inclusive education, employment and housing.</p> <p>Senate Education and Employment References Committee (2023). The issue of increasing disruption in Australian school classrooms: Interim report. Parliament of Australia.</p> <p>South Australian Commissioner for Children and Young People (2020). The Blame Game - The perspectives from South Australian children and young people on the causes and impacts of education exclusion and why we need to stop blaming children for system failure.</p>
Other parent / carer employment and income impacts	<p>Pressure on parents/carers’ employment where caregivers have to temporarily or permanently give up employment, leave their child unsupervised, or fund alternative care arrangements (for example, repurposing NDIS funding for respite care during school hours).</p>	<p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2021). Final Report - Volume 7: Inclusive education, employment and housing.</p> <p>South Australian Commissioner for Children and Young People (2020). The Blame Game - The perspectives from South Australian children and young people on the causes and impacts of education exclusion and why we need to stop blaming children for system failure.</p> <p>Graham. L. “What does exclusionary discipline do and why should it only ever be used as a last resort.” Queensland University of Technology. The Centre for Inclusive Education.</p>
Impacts on teachers and school resources used to manage suspensions and associated responses	<p>Reports from a number of government inquiries into the use of disciplinary responses and classroom disruption highlighted the adverse impact that challenging student behaviour can have on the ability of teachers to spend time instructing classrooms, as well as their own health and wellbeing if they are insufficiently supported.</p> <p>Additional school resources are also required to manage responses to ongoing student suspensions, including reviews and appeals of suspension decisions, working with parents and health professionals to identify alternative arrangements and administrative requirements.</p>	<p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2021). Final Report - Volume 7: Inclusive education, employment and housing.</p> <p>Senate Education and Employment References Committee (2023). The issue of increasing disruption in Australian school classrooms: Interim report. Parliament of Australia.</p>

3. Non-quantified impacts

The table below outlines a number of other impacts that were highlighted from studies in the research scan. Some of these impacts are social impacts (and therefore not easily monetised) while others were not quantifiable due to limited quantitative data available. However, several were called out in interviews and surveys of children, young people, parents/carers and teachers and are important considerations when considering the impact of suspensions and school disengagement over the short and longer term.

Summary	Impact	Example data sources
Longer term impacts		
Mental health and subjective wellbeing	<p>Numerous studies highlight the association between education attainment, employment and financial wellbeing with lifetime health outcomes ('socioeconomic determinants of health'). Conversely, early school leaving and non-Y12 educational attainment are associated with poorer reported health outcomes.</p> <p>The Disability Royal Commission suggested existing differences in life satisfaction experienced by people with disability as a result of lower employment and incomes as well as other drivers. Further impacts from school disengagement may potentially exacerbate these differences.</p> <p>A UK longitudinal study of young people found that those who had previously been permanently excluded from school were statistically more likely to report poorer health and wellbeing outcomes at ages 25/26 even after controlling for related socioeconomic and demographic factors. Young people who had been temporarily excluded showed smaller differences to students without exclusions.</p>	<p>Australian Institute of Health & Welfare (2022). Health across socioeconomic groups. Sourced from https://www.aihw.gov.au/reports/australias-health/health-across-socioeconomic-groups.</p> <p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2023). Research Report - Economic cost of violence, abuse, neglect and exploitation of people with disability.</p> <p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2021). Final Report - Volume 7: Inclusive education, employment and housing.</p> <p>Obsuth, I., Madia, J. E., Murray, A. L., Thompson, I., & Daniels, H. (2023). The impact of school exclusion in childhood on health and well-being outcomes in adulthood: Estimating causal effects using inverse probability of treatment weighting. <i>British Journal of Educational Psychology</i>, 00, 1-14. https://doi.org/10.1111/bjep.12656</p>
Increased income support reliance	<p>Reduced employment and earnings from Y12 education non-attainment is likely to also be associated with increased income support reliance across the adult life course. Income support payments are implicitly reflected in the earnings assumptions used to calculate individual income gaps.</p>	
Life satisfaction and subjective wellbeing from unemployment	<p>The Disability Royal Commission's recent analysis of the economic cost of violence, abuse, neglect and exploitation of people with disability observes that people with disability obtain large negative impacts from unemployment on life satisfaction.</p> <p>We can extend their estimation approach on the value of subjective wellbeing to people with disability who were suspended and did not attain Year 12 educational levels (relative to people with disability).</p> <p>This value is estimated to be \$2.1m, based on the study where unemployment has a -0.5 point impact on life satisfaction and a one-point increase is equal to \$26,419, affecting a cohort of 2,917 students at an unemployment rate of 5.5%.</p>	<p>Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (2023). Research Report - Economic cost of violence, abuse, neglect and exploitation of people with disability.</p>

4. Assumptions and limitations (1/3)

Due to data gaps in the available research, assumptions have been made in the calculation approach that links outputs to the available inputs. These assumptions can be broadly adjusted using attribution factors that modify the strength that specific inputs are assumed to have on short and longer term impacts.

Data	Reference	Assumption
NCCD verified disabilities	1	Nationally Consistent Collection of Data on School Students with Disability (NCCD) verified disabilities were chosen over students with EAP verified disabilities. EAP verified disabilities capture a limited set of disability categories and the EAP prevalence rate is at 6%, which is lower than the NCCD rate of 20.3% and the national average disability prevalence rate of approximately 10%. NCCD is a definition of disability based on the Disability Discrimination Act and used by other state jurisdiction Education agencies. It is noted that the NCCD definition is broader than that used in the ABS Survey of Disability, Ageing and Carers (SDAC), a national source of data on disability prevalence and other observations.
Parent / carer opportunity cost	2	The carer full time employment rate (70.9%) was used to estimate the cost of minding children whilst they were suspended. However, this does not account for extended family/kin who could also potentially care for children outside school (e.g. grandparents). Carers may also have flexible working arrangements such as carers leave, work from home or non-fixed hours that would result in a lower productivity loss in the shorter term.
Teacher opportunity cost	3	Teacher salary is taken to be the median of 81,628 (first year of work) - 108,359 (the highest base pay before Senior Teacher)
Student performance as reflected in NAPLAN results	4	Statistics on students with suspensions/exclusions achieving the South Australia Department of Education's Standard of Education Achievement (SEA) in NAPLAN tests were used to inform assumptions around the NAPLAN performance of Queensland students with disability and suspensions. SEA is defined as achieving NAPLAN proficiency bands at 1 or more proficiency bands above the National Minimum Standard. The analysis findings from South Australia excluded withdrawals/absences. The study notes that students with disabilities and those with suspensions are more likely to be absent during an exam. No data was available on the NAPLAN performance of students with both a history of suspensions and disability.
Student performance and wellbeing influences	5	There are many unobserved factors involved in students' life which can also influence student learning, development and educational achievement alongside school disengagement and suspensions, such as their household's socioeconomic characteristics, family circumstances and broader school and community factors. It is likely that the short and longer term impacts estimated in this analysis will have been at least partially influenced by these factors.

Key sources:

1. Provided in the Queensland student and SDA counts by student categories dataset. Department of Education. (2023). Queensland student and SDA counts by student categories
2. Australian Bureau of Statistics (2018). Disability, Ageing and Carers, Australia: Summary of Findings. Sourced from: [Disability, Ageing and Carers, Australia: Summary of Findings, 2018 | Australian Bureau of Statistics \(abs.gov.au\)](https://www.abs.gov.au/australians-and-society/disability-ageing-and-carers/summary-of-findings)
3. Queensland Government. (2024). Pay and Benefits. <https://teach.qld.gov.au/teach-in-queensland-state-schools/pay-benefits-and-incentives/pay-and-benefits>
4. Graham et al., (2020). Inquiry into Suspension, Exclusion and Expulsion Processes in South Australian government schools: Final Report. The Centre for Inclusive Education, QUT: Brisbane, QLD.

4. Assumptions and limitations (2/3)

Another outcome from data gaps is the reliance on studies that may not align completely to the context of this project. For example, many of the studies covered in our research scan measured outcomes for people with disability, or outcomes for people with suspensions and/or expulsions from school, but not the intersection of these two cohorts. Only a few research analyses attempted to control for disability status when assessing the association of suspensions with subsequent impacts.

In several instances we have assumed that the outcome rates experienced by children with disability and suspensions are similar to those of all children with suspensions or of all children with disability. In practice this may not always be the case.

Data	Reference	Assumption
Students are 18.1% more likely to not complete Year 12 because of suspensions	6	<p>This is a 2013 study conducted by the Australian National University to understand the educational penalty for being suspended from school. We assumed this impact is the same for children with disabilities as for other children, as this study did not differentiate findings by disability status. In practice the impact of suspensions may be larger or smaller for children with disability.</p> <p>The completion rate controls for reported own schooling experience, family welfare history, and family characteristics when the respondent was 14 years of age.</p> <p>This study uses short term suspensions to count the number of students disassociated from school. This does not account for students who received long-term suspensions or were excluded without a short-term suspension. However, whilst it does occur, it is more common that students receiving long-term suspensions or exclusions have had a history of short-term suspensions. This has a conservative impact on the figures provided.</p>
Data used to inform assumptions around teacher classroom time impacts	7	<p>Key assumptions based on this study include: Lower secondary school teachers use 14.5% of their classroom time maintaining order, and lower secondary school teachers spend 27.2 hours teaching per week. These assumptions were drawn from the Australia lower secondary school indicators from the OECD Teacher and Learning International Study (TALIS) 2018 results.</p> <p>Actual time spent by Queensland teachers on managing classroom behaviour may vary from the national average. As part of the survey data collection methodology, the OECD excluded the collection of information from some specialist schools, such as those for students with special needs. This may mean that 14.5% is not a representative proportion of the time spent maintaining classroom behaviour for all the Queensland teachers our study relates to, and that the actual figure could be higher or lower than 14.5%.</p>
Employment and income statistics for persons with disability	8	<p>The ABS Household Income and Wealth survey reports on data collected in 2018 and has been used to inform assumptions around earnings by highest education level attained and labour force status for people with disability.</p> <p>'Highest educational attainment' reflect post-school education undertaken as well as school leaving education levels.</p> <p>Disability status in the survey includes disabilities developed in adult life as well as those present during school years. We have assumed the impact of Year 12 education non-attainment is similar for those with disabilities regardless of when disability was acquired.</p>

Key sources:

6. Cobb-Clark, D. A., Kassenboehmer, S. C., Le, T., McVicar, D., & Zhang, R. (2013). *Is There an Educational Penalty for Being Suspended from School?* SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.2364166>

7. OECD. (2018). *TALIS 2018 tables - OECD*. [www.oecd.org. https://www.oecd.org/education/talis/talis2018tables.htm](https://www.oecd.org/education/talis/talis2018tables.htm)

8. *Household Income and Wealth, Australia, 2019-20 financial year | Australian Bureau of Statistics. (2022, April 28). www.abs.gov.au. https://www.abs.gov.au/statistics/economy/finance/household-income-and-wealth-australia/latest-release#introduction*

4. Assumptions and limitations (3/3)

Another outcome from data gaps is the reliance on studies that may not align completely to the context of this project. For example, many of the studies covered in our research scan measured outcomes for people with disability, or outcomes for people with suspensions and/or expulsions from school, but not the intersection of these two cohorts. Only a few research analyses attempted to control for disability status when assessing the association of suspensions with subsequent impacts.

In several instances we have assumed that the outcome rates experienced by children with disability and suspensions are similar to those of all children with suspensions or of all children with disability. In practice this may not always be the case.

Data	Reference	Assumption
Data used to inform assumptions around impacts of suspensions on Youth Justice contact for young people with disability	9	The NSW NDDA pilot studies around youth offending for young people with disability were based on a disability cohort that represented 3.5% of the birth cohort population in NSW, using definitions that are likely to be different to the NCCD definition of disability. When used in our calculations, we assumed that a comparable proportion from the NCCD population would experience similar rates of youth justice system contact to the disability cohort in the NSW NDDA study, while the remainder would experience general population rates of contact with the youth justice system.
	10	Likelihood of young people with suspensions having offending contact, relative to other young people without suspensions have been estimated as 1.5-2x. Assumptions are based on Australian studies which found that: <ul style="list-style-type: none"> (i) children with school suspensions were associated with a 1.5x likelihood of 'antisocial behaviour' and (ii) "children with teacher-identified emotional or behavioural problems at school entry had an incidence rate of police contact that was twice that of children without such problems".
	11	Assumptions around the ratio of young people with supervision orders relative to those with detention orders by age 18 are based on the ratio of the two populations over the 2022-23 year. Assumptions around the average number of youth justice supervision orders and detentions by age 18 are based on an AIHW study of accumulated youth justice orders (birth cohort data was available from Tasmania, ACT and NT). The average number of community-based and detention orders may differ for young people in the Queensland youth justice system.
Proportion of young people with a Youth Justice offence who had a subsequent Adult Justice custodial sentence	12	13% of young people with a Youth Justice offence will go on to have a subsequent Adult Justice custodial sentence.

Key sources:

- 9a. Boiteux, S., & Poynton, S. (2023). *Offending by young people with disability: A NSW linkage study* NSW BUREAU OF CRIME STATISTICS AND RESEARCH 2 OFFENDING BY YOUNG PEOPLE WITH DISABILITY. CRIME and JUSTICE BULLETIN NUMBER, 254. <https://www.bocsar.nsw.gov.au/Publications/CJB/2022-Report-Offending-by-young-people-with-disability-CJB254.pdf>
- 9b. Ringland, C., Boiteux, S., Poynton, S., (2023). *People with disability and offending in NSW: Results from the National Disability Data Asset pilot*. Crime and Justice Statistics Bureau Brief. NSW Bureau of Crime Statistics and Research. [People with disability and offending in NSW: Results from the National Disability Data Asset pilot](#)
- 10a. Hemphill, S. et al. (2017) *Positive associations between school suspension and student problem behaviour: Recent Australian findings*. Sourced from <https://www.aic.gov.au/sites/default/files/2020-05/tandi531.pdf>.
- 10b. Dean, K. et al. (2021) *Incidence of Early Police Contact Among Children With Emerging Mental Health Problems in Australia*. Sourced from 10.1001/jamanetworkopen.2021.12057
- 11a. Australian Institute of Health and Welfare, *Youth Justice in Australia 2021-22*
- 11b. Australian Institute of Health and Welfare, *Young people returning to sentenced youth justice supervision, 2021-22*
- 11c. *Report on Government Services 2024, Part F, Section 17: Youth Justice services*
12. Chen, S., Matruglio, T., & Hua, J. (2005). *Contemporary Issues in Crime and Justice Number 86: The transition from juvenile to adult criminal careers*.

5. Cost comparison for different attribution rate assumptions

To highlight how economic cost estimates may vary depending on the extent to which impacts are directly attributed to (a) suspensions (as an indicator of school disengagement) and (b) not attaining Year 12 education levels, the table below outlines three simple scenarios with high, medium or low attribution factor assumptions.

	Attribution adjustment	100% - High	60% - Medium	20% - Low
Cohort		Cost		
Number of Prep - Year 12 students in Queensland with a disability estimated to receive short suspensions in 2023		16,118	16,118	16,118
Short term impacts (per year)		Cost		
Annual parent/carer opportunity cost	Y	\$14.1m	\$8.5m	\$2.8m
Annual Youth Justice detention costs	Y	\$4.1 - \$7.4m	\$2.5 - \$4.5m	\$0.8 - \$1.5m
Annual Youth Justice supervision costs	Y	\$1.4 - 2.6m	\$0.9 - 1.6m	\$0.2 - 0.5m
Number of students in Year 9 - 12 with a disability and short suspensions estimated to achieve NAPLAN proficiency bands at or below the National Minimum Standard in Year 9	Y	2,759	1,655	552
Number of students not completing Year 12	Y	2,917	1,750	583
Long term impact		Cost		
Average annual income gap for not completing Year 12 (per year)	Y	\$14,105	\$8,463	\$2,821
Average annual income gap for all students not completing Year 12 (per year)	Y	\$41.1m	\$14.8m ¹	\$1.6m ¹

1. Note that the long term impact estimates are particularly sensitive to attribution assumptions, as they represent the combination of two attribution factors:

- The % attribution of students missing Year 12 attainment to suspensions / school disengagement
- The % attribution of the average annual income gap to Year 12 completion

Appendix: Calculation approach: Short term costs - Youth Justice (1/5)

Overview

Research from Queensland and other state jurisdictions show that young people with diagnosed or suspected disability, as well as young people with suspension history and school disengagement, are overrepresented in offending and Youth Justice populations. There is also extensive evidence to support the link between Youth Justice and Adult Justice involvement.

However, key challenges remain when trying to use the existing research to quantify the impact of student behavioural issues and school disengagement on subsequent Justice system interactions, including students with disabilities. In this situation suspensions are assumed to be a proxy indicator of behavioural and school disengagement issues.

Calculation approach

Youth Justice involvement for Queensland students with disability and suspensions up to age 18 has been estimated on the basis outlined on the following pages.

We have focused on Youth Justice detention and supervision order costs to determine the short term costs associated with students with disability and suspensions who become involved with offending, as these are likely to represent the largest component of offending related economic costs. We acknowledge there are also broader costs associated with youth crime to Courts, Police and the community.

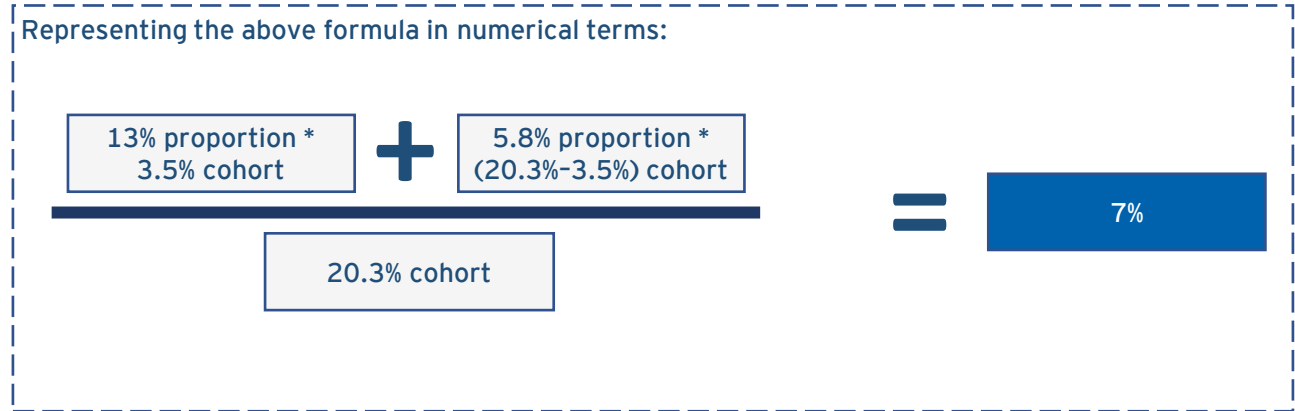
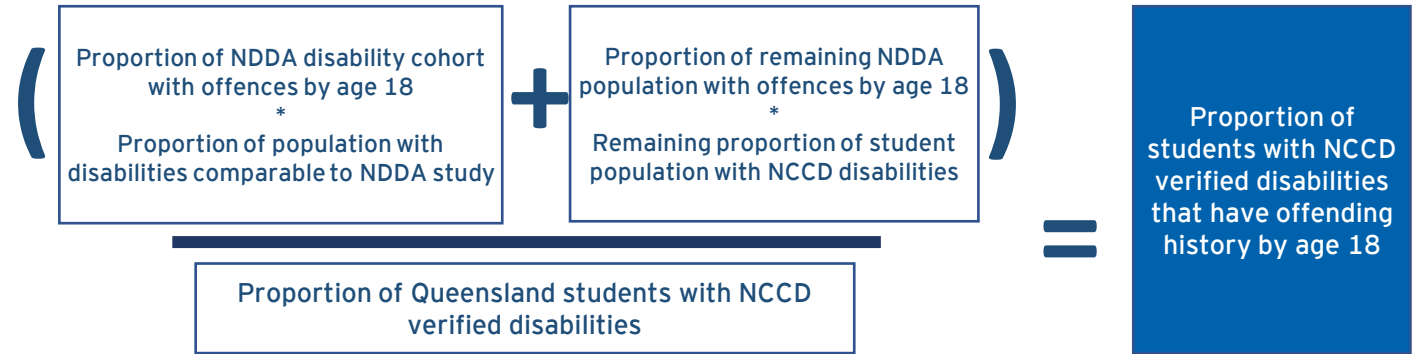
Approach outline:

- a. Estimate the proportion of Queensland students with NCCD disabilities who have offending contact by age 18
- b. Estimate the proportion of Queensland students with NCCD disabilities who have Youth Justice detention history by age 18
- c. Estimate the difference in rates of offending involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended
- d. Estimate the difference in rates of YJ detention involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended
- e. Estimate the difference in rates of YJ supervision order involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended

Appendix: Calculation approach: Short term costs - Youth Justice

a. Estimate the proportion of Queensland students with NCCD disabilities who have offending contact by age 18

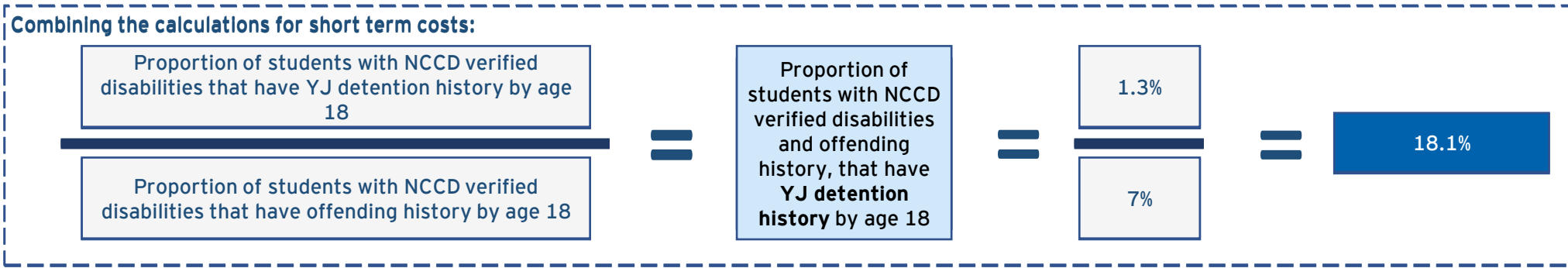
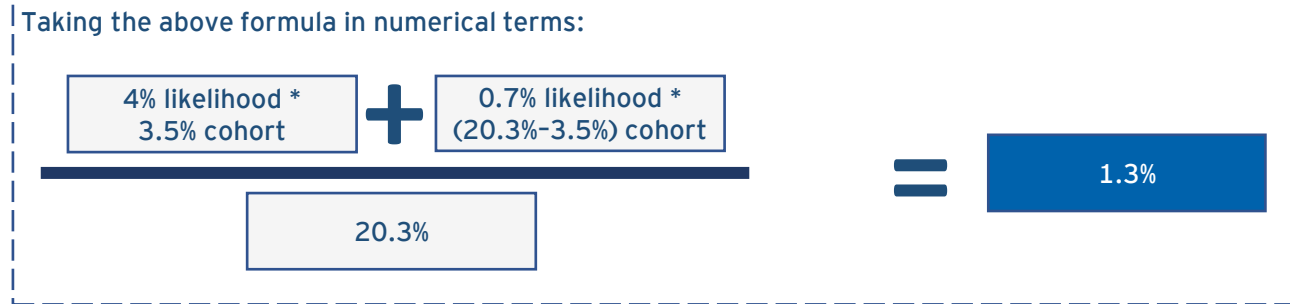
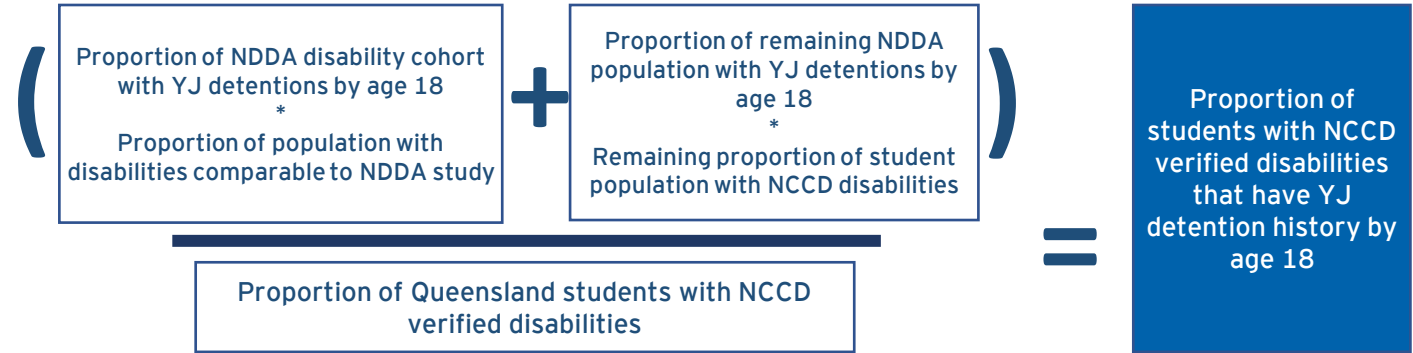
- The NSW NDDA Youth Justice pilot study (2022) was the main data source for these estimates, as the only birth cohort study which identifies Justice system contact rates for young people with disability.
- The NDDA study relates to a narrow disability cohort (3.5% of the birth cohort population) and there is no data available to assess the extent to which the Queensland NCCD cohort (a much larger cohort representing 20% of the student population) profile is similar or different, e.g. by disability types or severity. This means it is challenging to extrapolate the NDDA study's findings to all of the NCCD cohort.
- To reflect these population differences we have applied the NDDA study's disability cohort offending and YJ involvement rates to a comparable subset of the Queensland NCCD student cohort (3.5% out of the 20.3% with NCCD disabilities) and have applied general population offending and YJ involvement rates to all other students in the NCCD cohort.



Appendix: Calculation approach: Short term costs - Youth Justice

b. Estimate the proportion of Queensland students with NCCD disabilities who have Youth Justice detention history by age 18

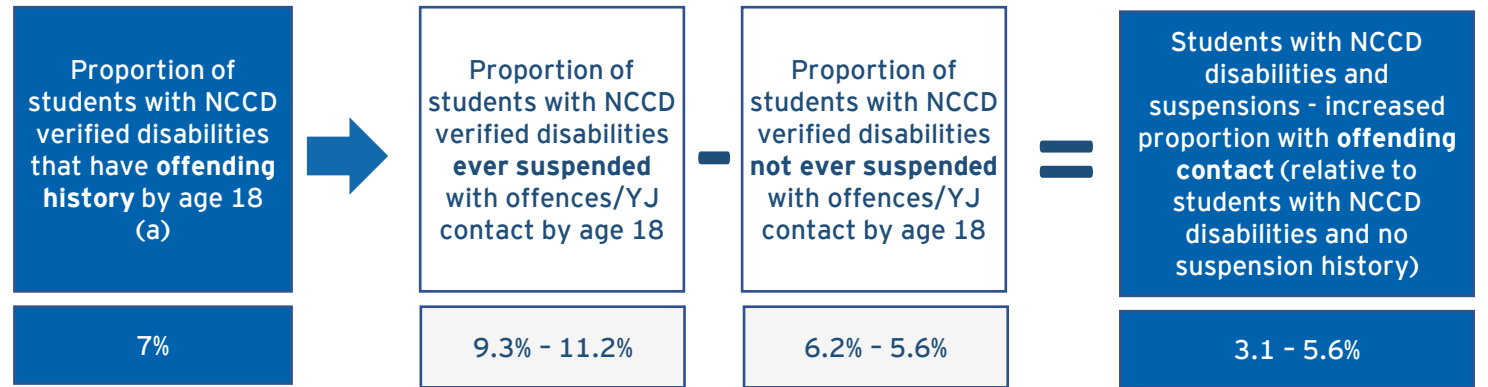
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- To reflect these population differences we have applied the NDDA study's disability cohort offending and YJ involvement rates to a comparable subset of the Queensland NCCD student cohort (3.5% out of the 20.3% with NCCD disabilities) and have applied general population offending and YJ involvement rates to all other students in the NCCD cohort.



Appendix: Calculation approach: Short term costs - Youth Justice

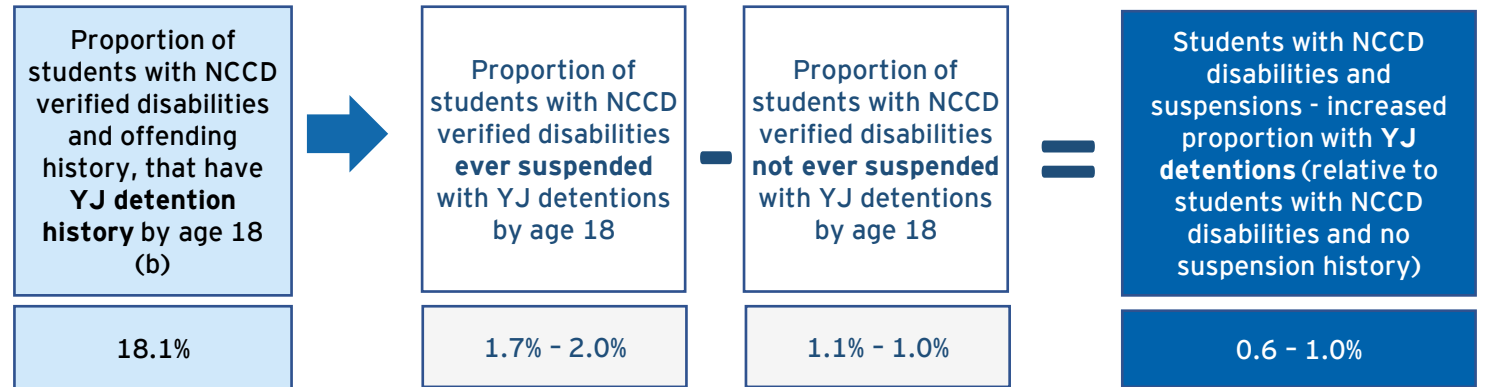
c. Estimate the difference in rates of offending involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended

- Proportion of young people who have ever been suspended by age 18: 26%, from NDIA Baseline participant ages 0-14 outcomes report (2020)
- Likelihood of young people with suspensions having offending contact, relative to other young people without suspensions: estimated as 1.5-2x, based on Australian studies which found that (i) children with school suspensions were associated with a 1.5x likelihood of 'antisocial behaviour' and (ii) "children with teacher-identified emotional or behavioural problems at school entry had an incidence rate of police contact that was twice that of children without such problems".



d. Estimate the difference in rates of YJ detention involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended

Based on the proportion of students with NCCD disabilities and offending history (a) multiplied by the proportion assumed to also have YJ detention history (18.1%) (b)



i. Hemphill, S. et al. (2017) Positive associations between school suspension and student problem behaviour: Recent Australian findings. Sourced from <https://www.aic.gov.au/sites/default/files/2020-05/tandi531.pdf>.
 ii. Dean, K. et al. (2021) Incidence of Early Police Contact Among Children With Emerging Mental Health Problems in Australia. Sourced from 10.1001/jamanetworkopen.2021.12057.

Appendix: Calculation approach: Short term costs - Youth Justice

- e. Estimate the difference in rates of YJ supervision order involvement between young people with disability who have ever been suspended by age 18, and those who have never been suspended

Based on the ratio of Queensland young people under community-based supervision relative to the number of young people in detention over the 2022-23 reporting year, i.e. for every young person in detention at some point over the year there are 1.8 young people under community-based supervision orders over the same period.

Note there will be some overlap from young people involved in both supervision and detention orders over a year.

