MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

He Whakaaro
EDUCATION INSIGHTS

# The educational experiences of disabled learners

## Summary

New Zealand is committed to providing an inclusive education system, ensuring that disabled students are supported to achieve their potential, and can participate fully in society. To what extent have we achieved this? This research uses Statistics NZ's Integrated Data Infrastructure (IDI) to combine the 2013 Disability Survey with data collected from early learning and schools. We use these data to provide one of the first systematic descriptions of the experiences and outcomes of disabled learners in the New Zealand education system.

## KEY FINDINGS

- Prevalence of disability increases with age, from 8% of students of primary school age in 2017 to 15% of intermediate or secondary school age.
- Prior participation rates in early childhood education are identical between disabled and non-disabled students.
- Disabled students are between 1.5 and 3 times more likely than their non-disabled peers to be stood-down, suspended and frequently move schools.
- There are only minor differences in attendance rates between disabled and non-disabled students, and most differences are medical-related.
- About a quarter of younger disabled students and 40% of older disabled students report that it is difficult for them to play or make friends.
- Disabled students are substantially more likely to receive Ministry-funded learning support than non-disabled students, but there are indications (from Ministry data and from parent reports) that many disabled students continue to have unmet needs.
- Some groups of disabled students (such as those with non-cognitive mobility impairments) attain NCEA at rates on par with non-disabled students.
- But as a group, disabled students are half as likely to attain NCEA Level 3 as non-disabled students, and more than twice as likely to attain no qualification at school.

Authored by: Mercy Mhuru, June 2020

## What is this report about?

**New Zealand has committed to providing quality and inclusive education for all disabled children and young people.**

New Zealand is a signatory to the United Nations' Convention on the Rights of Persons with Disabilities that safeguards the human rights and fundamental freedoms of all disabled people. As a member state of this convention, New Zealand has committed to providing quality and inclusive education for all disabled children and young people. The New Zealand Disability Strategy 2016-2026 aims to make New Zealand 'a non-disabling society – a place where disabled people have an equal opportunity to achieve their goals and aspirations, and all of New Zealand works together to make this happen' (Office for Disability Issues, 2016, p.6).

To what extent is the New Zealand education system successful in these goals? One challenge in monitoring these strategies is that describing the outcomes for disabled children and young people can be difficult with current administrative data (Office for Disability Issues, 2018). While the Ministry of Education collects national data on learners who receive additional support in early childhood education and schooling (Ministry of Education, 2020), data identifying which learners are disabled are not currently collected in a consistent way across the education system. In this report, we link the 2013 Disability Survey to education data to describe the educational experiences and outcomes of disabled learners, and to assess how the education system is providing these learners an inclusive, responsive and quality education.

## How have we identified disabled students?

This report mainly focuses on the 6,851 children and young people (aged 1-15) who were part of the child and adult version of the 2013 New Zealand Disability Survey. The Disability Survey was a survey of a representative sample of the population, administered by Statistics NZ following the 2013 Census. The child version of the survey was similar to the adult version, but was completed by the person's parent or caregiver.

The Disability Survey defines disability as the long-term limitation (resulting from impairment) in a person's ability to carry out daily activities.[1] The child survey contains 14 different questions about different activities, to which the parent or caregiver responds (depending on the question) 'yes/no', or 'easily/with difficulty/not at all'.[2] Respondents are considered to be disabled if they report 'yes' or 'with difficulty/not at all' to at least one of the 18 questions. Where a functional limitation is eliminated by the use of an assistive device (such as glasses or a hearing aid), the respondent is no longer identified as disabled in the disability survey. This method is consistent with guidance from the Washington Group on Disability Statistics (2017), which is generally considered to be best practice in identifying disability in an internationally comparable way. It is important to note that these questions do not ask respondents whether they identify as disabled, and nor do they ask people for the source of any impairment. This may mean that many learners described in this report as 'disabled' may not use this term to describe themselves, and these estimates may be different to definitions that are based on medical diagnoses.[3]

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[1] *There is no consensus on measuring and defining disability, but the World Health Organisation's (2002)'s International Classification of Functioning framework has generally been accepted internationally (Kostanjsek, 2011). The Disability Survey definition of disability is consistent with this framework. The framework classifies how well people function across three elements of a healthy life: body functions and structures, ability to perform day-to-day activities and ability to participate in the social domain.*

[2] *Some data in this report also include respondents of the adult version of the Disability Survey (aged 15-22). The adult survey was self-reported, and contained an additional nine functional questions.*

[3] *The exception to this is intellectual disability and developmental delay, where the survey refers to diagnoses or children having 'recognised' disabilities (see Table 1). This may mean that the survey undercounts the number of students with these impairments.*

The survey also categorises each functional question into one of 10 detailed impairment types (see Table 1).[4] Respondents were identified as having one of these impairments if they responded 'yes' or 'with difficulty/not at all' to any question within the category. Where there are sufficient numbers of learners in each impairment category, we report experiences for each of these impairments individually.

**Table 1. Functional questions used to define disabled learners**

| Question | Possible responses | Impairment | Asked of people aged |
|---|---|---|---|
| Can the selected child hear? | Easily/with difficulty/not at all | Hearing | 1-15 years |
| Can the selected child see (with glasses if wears them?) | Easily/with difficulty/not at all | Vision | 1-15 years |
| Can the selected child stand? (If they can stand easily with braces or crutches then select 'easily'). | Easily/with difficulty/not at all | Mobility | 2-15 years |
| Compared with other children their age, can the selected child walk on a flat footpath? | Easily/with difficulty/not at all | Mobility | 2-15 years |
| Can the selected child move from one room to another at home? | Easily/with difficulty/not at all | Mobility | 2-15 years |
| Compared with other children their age, can the selected child bend down? | Easily/with difficulty/not at all | Agility | 2-15 years |
| Can the selected child use their hands to grasp an object such as a spoon or a crayon/pencil? | Easily/with difficulty/not at all | Agility | 2-15 years |
| Compared with other children their age, can the selected child take off their T-shirt? | Easily/with difficulty/not at all | Agility | 2-15 years |
| Does the selected child have a recognised intellectual disability? | Yes/No | Intellectual | 5-15 years |
| Most children have occasional emotional, nervous or behavioural problems. Does the selected child have any of these problems long-term that limits the type or amount of activity that they can do? | Yes/No | Psychological / Psychiatric | 5-15 years |
| Does a long-term psychological or mental health condition make it difficult for the selected child to do everyday activities? | Yes/No | Psychological / Psychiatric | 5-15 years |
| Because of a long-term condition or health problem, does the selected child have any difficult speaking and being understood? | Yes/No | Speaking | 2-15 years |
| Does a condition or health problem make it difficult for the selected child in general to learn? | Yes/No | Learning | 5-15 years |
| Has the selected child been diagnosed with a disorder or impairment that significantly delays their development? | Yes/No | Developmental delay | 1-15 years |

**Source:** New Zealand Disability Survey (2013).

In order to describe the educational experiences and learning support accommodations for disabled students, we linked the disability survey to educational data available in Statistics New Zealand's Integrated Data Infrastructure (IDI). The IDI is a database that brings together a range of administrative and statistical datasets in a secure way to be used for research purposes. We linked respondents of the disability survey (in 2013) to the population of students who were enrolled in New Zealand schools (or home-schooled) in 2017.[5] Children who were part of the disability

[4] *Memory impairment is the tenth impairment, for which questions are asked to people aged 15 and above in the adult survey.*

[5] *The 2013 disability survey is currently the latest data on disability, while the 2017 education data have the most updated learning support services in the IDI. This link allows us to analyse the educational outcomes of students aged 1-15 years in 2013, who become the 5-19 year olds in 2017.* While linking the 2013

survey in 2013 but subsequently left the country or died were dropped from the sample. In producing all figures in this report, we have applied survey weights to create estimates of the whole New Zealand population. However, because these estimates are based on only the 6,851 children and young people who participated in the disability survey, there is some uncertainty around all of these estimates. Estimates based on relatively small groups (such as specific impairments), or where there are only small differences between groups, should be treated with caution.

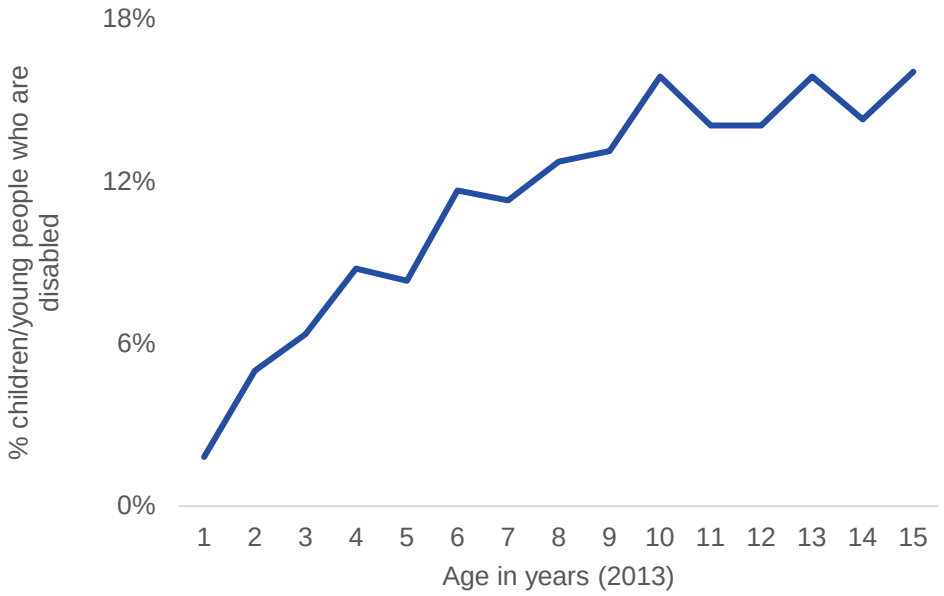
Because both disability prevalence and educational outcomes differ by age, we split most analysis in this report by two broad age groups: students aged 5-11 in 2017 (that is, approximately primary school aged), and students aged 12-19 in 2017 (approximately intermediate or secondary school aged). All demographic descriptions of the disabled learners are based on the date of the disability survey in 2013. All other educational outcomes refer to students' ages in 2017. For example, 6 year olds in 2017 were aged 2 in 2013, when the disability survey would have been completed on their behalf.

## Demographics of disabled students

**Disability prevalence increases with age**

Figure 1 shows the proportion of children and young people with disabilities according to the disability survey by age, from 1 to 15 years in 2013. At 1 year old, about 2% of all children are identified as disabled. The proportion of people with disabilities in the survey increases with age, to about 16% at age 15. While some of these disabilities may be acquired, most of this increase is likely due to the fact that some impairments are not obvious when children are younger.[6] Psychological or psychiatric, intellectual, and learning impairments become more visible with time as whānau and teachers notice issues such as developmental delay.

**Figure 1. Prevalence of disability by age in 2013**




*disability survey data to the 2013 education data is possible, this link does not cover some learning support services, such as behaviour service for which data is available in the IDI from 2014 onwards. This means that some students who accessed learning support, will be flagged as not having received any support if we link the disability survey data to 2013 education data. A limitation of using this method is that some students aged 1 who were yet to enrol in school in 2017 were not included in our analysis.*

[6] *The disability prevalence rates by age are underestimated for a number of reasons. The disability survey did not ask about speaking impairments for children below 2 years old, or intellectual, learning, psychiatric/psychological impairments for children below age 5, although these impairments may have existed from birth. Some impairments are not obvious and can go unidentified while a student is at early learning or school. Prevalence rates in this report therefore represent impairments that were known and asked about as at 2013.*

In Figure 2 we show the proportion of disabled children by impairment type in two age groups; the 1-7 and 8-15 year age groups.[7] For all impairment types, there is a higher proportion of disabled children and young people aged 8-15 years, consistent with Figure 1. The most prevalent impairment type for the 8-15 year olds is learning (at 9%), while for the younger children it is speaking impairment (4%). This is likely to be because speaking impairments can be more easily identified at an earlier age than other impairments such as learning and psychiatric impairments.[8] Rates of sight, agility and (to a lesser extent) hearing impairments do not tend to be substantially different by age group, but these impairments are also the least common, with only 1-2% of people having these impairments.

**Figure 2. Disability prevalence by impairment type**

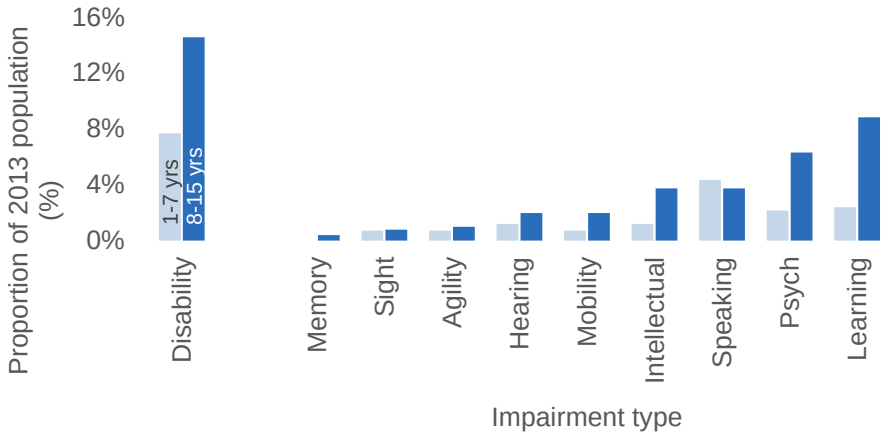
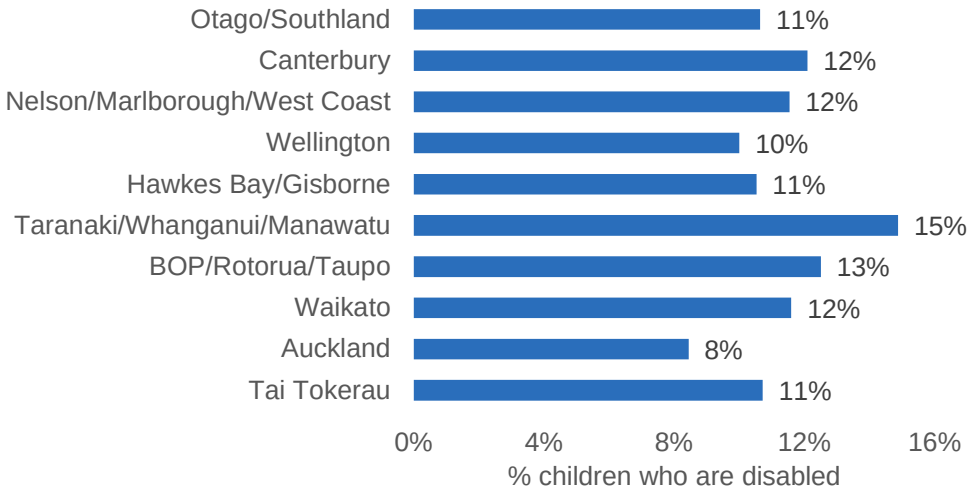



Figure 3 shows the proportion of disabled children and young people by school region. Impairments are most common in the Taranaki/Whanganui/Manawatu region, where 15% of people are identified as disabled. Auckland and Wellington have the least prevalence of disability at 8% and 10% respectively.[9]

**Figure 3. Prevalence of disability by school region (2013)**




[7] *The proportions shown in Figure 2 for learning, intellectual and psychological/psychiatric impairments for the 1-7 year olds only consist of students aged 5-7 in 2013 as they are the only ones in the 1-7 year age group who were eligible for assessment for these impairments.*

[8] *The proportion shown for speaking impairment for the 1-7 year age group only consists of children who were 2-7 years old in 2013. Children below 2 years old were not assessed for speaking impairments.*

[9] *Taranaki is reported as the least ethnically diverse region in the 2013 Census, with predominantly New Zealand born people of European and Māori descent. Auckland is the most ethnic diverse, with a high proportion of immigrants. These differences could be driving the differences we see in disability prevalence across regions.*

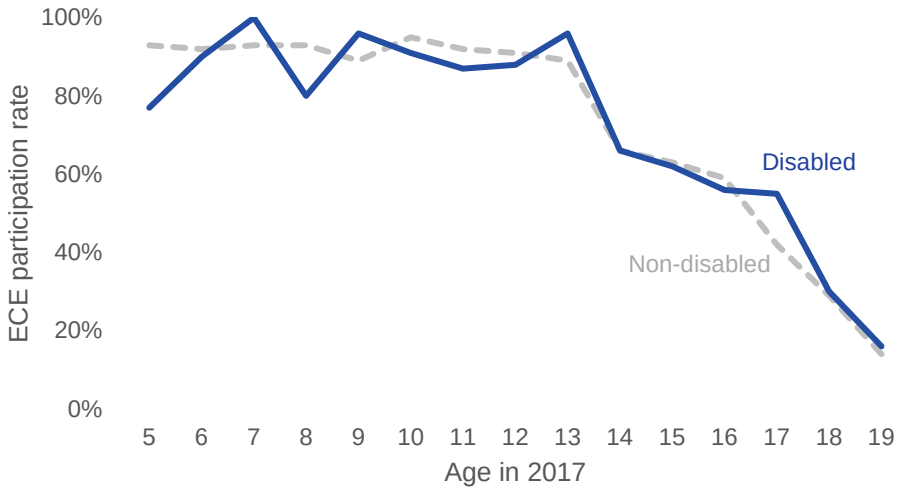
## Inclusion of disabled learners in the education system

**At each age, the rate of prior early childhood education participation for both disabled and non-disabled students is almost the same.**

An inclusive education system is one which encourages full participation and achievement of all learners, through being present, learning and belonging. In this section, we analyse the participation of disabled students in the education system. The first measure of inclusion is the extent to which disabled learners participate in early childhood education (ECE).[10] Figure 4 shows the proportion of students aged 5-19 years in 2017 who previously attended some form of ECE. The average rate of prior ECE attendance rises sharply from 46% for 14-19 years olds to about 92% for 5-13 year olds.[11] At each age, the rate of prior ECE participation for both disabled and non-disabled students is almost the same. This is an indication that disabled learners are able to access at least some early childhood education.[12]

It is difficult to accurately measure inclusivity of school practice with available administrative data.[13] Some measures that are available using administrative data that might be an indication of whether disabled students are included in schools are school moves, stand-downs and suspensions, and the rate of home-schooling. Table 2 compares the rates of each of these events for both disabled and non-disabled students, and also reports the ratio between these groups. A ratio of 0.5 indicates that disabled students are half as likely to have experienced the outcome (e.g. to move schools) relative to non-disabled students. A ratio of 2 indicates that disabled students are twice as likely to have experienced the outcome as non-disabled students.

**Figure 4.** ECE participation for the 2017 student group




The first of these measures is the rate of moving schools in a non-structural manner.[14] Table 2 shows that disabled students are more likely than non-disabled students to change schools outside of the year levels where changing schools would be expected. This is particularly the case for younger disabled students. Disabled students of primary school age were 1.5 times as likely as their non-disabled peers to

[10] *This measure is predominantly taken from the school enrolment form that asks each enrolling parent whether the child attended one or more ECE service in the six months prior to starting school.*
[11] *This can be attributed to the 20 Hours ECE policy introduced in 2007, which increased ECE participation for students younger than 13.*
[12] *This comparison only shows whether a child attended ECE or not, and does not include an assessment of hours attended. Data on hours attended are unavailable for anyone who participated in ECE prior to the introduction of the Early Learning Information system in 2014.*
[13] *The Education Review Office (2015) evaluated the inclusive practices for students with special education needs in schools using more detailed school data as well as observation of school practices. That report found that 78% of schools in the sample were 'mostly inclusive' of students with special education needs. 'Special education needs' in that context was defined as the 3% of students with the most intensive needs, which is a smaller group than the disabled students who are the focus of this report.*
[14] *'Structural' school moves are defined as expected moves between schools that occur at the beginning of the year and between different school types, such as the move from an intermediate to a secondary school. 'Non-structural' moves are any other moves between schools.*

have at least one non-structural move, and 3.7 times as likely to have moved schools at least three times. The ratio of non-structurally moving schools at least 3 times is not as marked for older disabled students but these students were still 1.8 times more likely to have moved schools frequently than similar-aged students without disabilities.

**Table 2. Administrative measures of school inclusion for disabled students**

| | 5-11 year olds | | | 12-19 year olds | | |
|---|---|---|---|---|---|---|
| Educational experiences | Disabled | Non-disabled | Ratio | Disabled | Non-disabled | Ratio |
| % 1+ non-structural move | 31% | 21% | **1.5** | 39% | 32% | 1.2 |
| % 3+ non-structural moves | 8% | 2% | **3.7** | 13% | 7% | **1.8** |
| % Home schooling | s | s | s | 3% | 1% | **1.9** |
| % 1+ stand-down | s | 1% | s | 15% | 8% | **2.0** |
| % 3+ stand-downs | s | s | s | 5% | 1% | **3.1** |
| % 1+ suspension | s | s | s | 4% | 2% | **2.5** |

Note: The 'ratio' column divides the 'disabled' by the 'non-disabled' columns – it indicates how much more likely it is that disabled students have this characteristic than non-disabled students. Ratios greater than 1.5 or less than 0.67 are indicated in **bold**. Results indicated 's' were suppressed for confidentiality in the IDI.

School mobility is important: Dixon (2018) finds that each additional non-structural move is associated with substantially lower probabilities of achieving NCEA. Although school changes might be driven by circumstances of the student or their whānau, these differences are likely to reflect that the schooling system is not effectively meeting the needs of many disabled students.

**These results indicate that secondary school-aged disabled students are between twice and three times more likely to be stood down or suspended compared to non-disabled students.**

Another potential indicator of the extent to which the school system is inclusive of students with disabilities is the prevalence of home-schooling. Whānau who opt to educate their own children may be doing so due to a lack (or perceived lack) of inclusion and support offered in schools (as well as many other reasons). We found that home-schooling is very uncommon for both disabled and non-disabled students, but disabled 12-19 year olds were about twice as likely to be home-schooled in 2017 than their non-disabled peers. In a recent survey conducted by IHC (2020), 27 percent of parents of disabled students reported that their child had been refused enrolment or had conditions placed on their enrolment at school.[15]

A third administrative measure of school inclusion is the rate of stand-downs and suspensions. These refer to the formal temporary removal of a student from school. By definition, these are therefore measures of school *exclusion*. These results indicate that secondary school-aged disabled students are between twice and three times more likely to be stood down or suspended at least once compared to non-disabled students. This is consistent with research in the United States finding disabled students are the most likely recipients of disciplinary actions such as suspensions and stand downs (Morgan et al., 2019). It is important to be clear, however, that available data does not tell us *why* students were stood-down or suspended. Guidelines for schools (Ministry of Education, 2009) state that stand-downs and suspensions must be used after all other avenues of responding to challenging behaviour have been

[15] *Note that methodological details behind this survey have not been published and it may not be representative of all parents of disabled students.*

explored, and are appropriate only for circumstances such as when student behaviour risks serious harm.[16]

**Table 3. School attendance for disabled students**

| | 5-11 year olds | | | 12-19 year olds | | |
|---|---|---|---|---|---|---|
| **Attendance/ absence type** | **Disabled** | **Non-disabled** | **Ratio** | **Disabled** | **Non-disabled** | **Ratio** |
| Present | 87% | 90% | 1.0 | 82% | 86% | 1.0 |
| Late to class | 2% | 2% | **1.5** | 1% | 1% | 1.2 |
| Truant | 1% | 1% | 1.3 | 2% | 2% | 1.4 |
| Illness | 5% | 4% | 1.3 | 5% | 4% | 1.4 |
| Doctor/Dentist | 0.3% | 0.1% | **3.0** | 0.4% | 0.2% | **2.0** |
| Sickbay | s | s | | 0.10% | 0.04% | **2.5** |
| All medical | 5% | 4% | 1.3 | 5% | 4% | 1.4 |
| Other | 5% | 4% | 1.3 | 8% | 7% | 1.1 |

Note: The 'ratio' column divides the 'disabled' by the 'non-disabled' columns – it indicates how much more likely it is that disabled students have this characteristic than non-disabled students. Ratios greater than 1.5 or less than 0.67 are indicated in **bold**. 'All medical' codes include absence due to illness, doctor/dentist appointments, and time in the sickbay. Results indicated 's' were suppressed for confidentiality in the IDI.

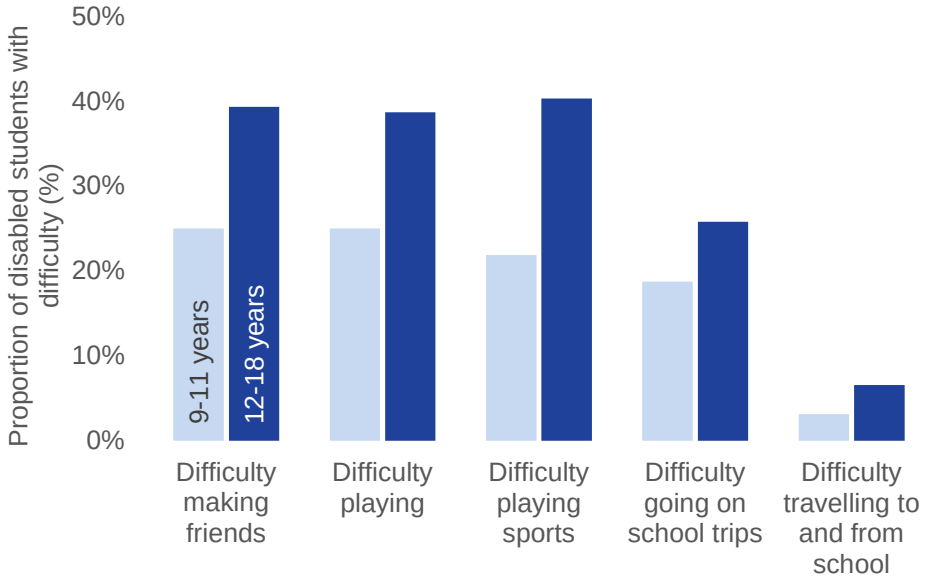
**To be inclusive, schools must work to ensure continuity of learning, knowing that some students may not be able to attend as frequently.**

A fourth administrative measure of participation is the rate of school attendance. School attendance is important because it is a key driver of learning: students cannot learn if they are not at school. Recent research (Webber, 2020) finds that even small absences from school are associated with substantial declines in student attainment. Table 3 shows rates of different types of attendance/absence for disabled students, as well as their non-disabled peers, based on the Term 2 attendance collection run by the Ministry of Education. There are minor differences in the rates of being present in class between disabled and non-disabled students, of between 3-4 per cent. This translates to fewer than two days across the Term. Although disabled students are more likely to be coded as late to class or truant, these are relatively rare events for all students. Most of the difference in attendance rates between disabled and non-disabled students can be explained by medical-related absences (mainly absence from school due to illness). For some disabled students, this additional absence may be due to their impairment, and may be unavoidable. To be inclusive, schools must therefore work to ensure continuity of learning, knowing that some students may not be able to attend as frequently. There are no existing data sources to indicate one way or another whether this continuity of learning is occurring.

Another important aspect of school inclusion is the ability for students to be included in social or extra-curricular activities such as making friends, playing and taking part in sporting activities. The child disability survey asked parents or caregivers of disabled students aged 5-14 years (in 2013) a range of questions relating to these aspects (Figure 5). About 40% of older disabled students reported difficulty in making friends, playing and taking part in sports, while 25% reported difficulty in going on school trips. The proportions are lower for the 9-11 year olds, where between one-fifth and one-quarter of parents or caregivers reported difficulties. These results are also consistent with recent research finding that 40% of disabled secondary school students report being bullied by peers in the previous year, one of the highest rates of all student groups examined (McGregor & Webber, 2019).

[16] *These guidelines also provide advice to schools when working with students with special education needs. These guidelines are available at https://www.education.govt.nz/school/managing-and-supporting-students/student-behaviour-help-and-guidance/*

**Figure 5. Self-reported difficulties in social or extra-curricular activities**




## Disabled students and learning support

While most learning needs can be accommodated by classroom teachers through inclusive teaching practices, some students' needs require additional resources beyond this. These additional forms of learning support can include funding such as the Ongoing Resourcing Scheme; forms of education such as special schools, Alternative Education, or Activity Centres; or services offered to relatively large numbers of students, such as the Attendance Service or Reading Recovery.[17] In New Zealand, much of this learning support is funded and provided directly by the Ministry of Education. However, a large amount of learning support is also funded directly by schools through their operations grants or through local fundraising activity.

Table 4 shows the proportion of disabled and non-disabled students for whom there was an IDI record of receiving different forms of learning support, as well as the ratio of these rates. The rates reported in this table are likely to be lower than the proportion of students who can expect to receive some form of learning support across their whole schooling career, for four reasons:

1. Most learners have needs that are met in the classroom.
2. IDI data does not include many forms of additional support, including support organised and funded directly by schools.
3. Most of the students in our data sample are still enrolled at school, and might receive learning support in the future. For example, primary school-aged students have not yet had a need to receive supports such as Alternative Education or Teen Parent Units.
4. The learning support data in the IDI are incomplete for some programmes. For example, data for Early Intervention services (typically offered to 3-5 year old children) has only been captured at an individual level since 2014. This means that many older students did, in fact, receive Early Intervention services, but we cannot identify these students with available data.

Despite these limitations, available data still provides an important picture of the provision of many types of support, and how it differs by disability. Overall, these

[17] *For more detail on the learning support included in this report, see http://www.education.govt.nz/school/student-support/special-education.*

**Disabled students are more likely to receive most forms of learning support.**

results show that disabled students are much more likely than their non-disabled peers to receive most forms of learning support we have data for. Disabled students of primary school age in 2017 are 2.4 times more likely than non-disabled students to have a record of ever receiving some learning support, and disabled students of secondary school age are 1.7 times more likely. The only form of learning support that non-disabled students are more likely to receive than disabled students is English for Students of Other Languages (ESOL), a support to help students with refugee and migrant backgrounds with issues relating to English language proficiency. This is due to migrants being less likely to report functional impairments than people born in New Zealand. When excluding ESOL, the ratio of receiving any form of learning support rises to 3.2 for younger students, and 2.4 for older students.

**Table 4. Proportion of students receiving learning support**

| | 5-11 year olds | | | 12-19 year olds | | |
|---|---|---|---|---|---|---|
| **Learning support programme** | **Disabled** | **Non-disabled** | **Ratio** | **Disabled** | **Non-disabled** | **Ratio** |
| Ongoing Resourcing Scheme (ORS) | 12.5% | s | | 6.8% | s | |
| High Health | s | s | | 1.3% | s | |
| Special School | 6.3% | s | | 4.1% | s | |
| Interim Response Fund | 3.1% | s | | 4.1% | 0.7% | **5.9** |
| Alternative Education | s | s | | 2.7% | 0.9% | **2.9** |
| Behaviour Service | 6.3% | 0.5% | **12.0** | 2.7% | 0.5% | **5.8** |
| Communication Service | 15.6% | 2.1% | **7.5** | s | s | |
| Early Intervention | 21.9% | 2.9% | **7.6** | s | s | |
| Comprehensive | 9.4% | 0.5% | **18.0** | s | s | |
| Moderate | s | 0.3% | | s | s | |
| Communication | 12.5% | 2.1% | **6.0** | s | s | |
| English for Speakers of Other Languages (ESOL) | 6.3% | 10.6% | **0.6** | 5.3% | 11.5% | **0.5** |
| Attendance Services | 9.4% | 5.2% | **1.8** | 16.2% | 5.2% | **3.1** |
| Reading Recovery | 15.6% | 8.1% | **1.9** | 12.0% | 6.0% | **2.0** |
| Resource Teachers: Literacy (RTLit) | 3.1% | 0.8% | **4.0** | 5.3% | 1.8% | **2.9** |
| Resource Teachers: Learning and Behaviour (RTLB) | 12.5% | 3.6% | **3.4** | 6.8% | 0.7% | **9.8** |
| Any intervention | 62.5% | 26.0% | **2.4** | 43.2% | 26.3% | **1.6** |
| Any intervention (excl. ESOL) | 59.4% | 18.4% | **3.2** | 41.3% | 17.5% | **2.4** |

Note: The 'ratio' column divides the 'disabled' by the 'non-disabled' columns – it indicates how much more likely it is that disabled students have this characteristic than non-disabled students. Ratios greater than 1.5 or less than 0.67 are indicated in bold. Results indicated "s" were suppressed for confidentiality in the IDI, due to very low student numbers observed.

Table 4 shows a group of learning supports that are received almost exclusively by disabled students. About 13% of younger disabled students receive Ongoing Resourcing Scheme (ORS) funding, as well as 7% of older disabled students. The proportion of students who were not identified as disabled through the disability survey yet received ORS funding was so low as to require suppression due to IDI confidentiality rules. This is more likely to reflect data error than children without disabilities actually receiving ORS funding. Similarly, almost all students receiving support from the School High Health Needs Fund, Intensive Resource Funding, or special schools were disabled according to the disability survey.

That these supports are more common for younger disabled students than older disabled students may be due to the age at which impairments manifest. Our younger age range includes children as young as one at the time of the disability survey. It may be that the group identified as disabled at these young ages have more

intensive needs and are more likely to be in the target group for intensive support such as ORS funding than people whose impairments manifest at an older age.

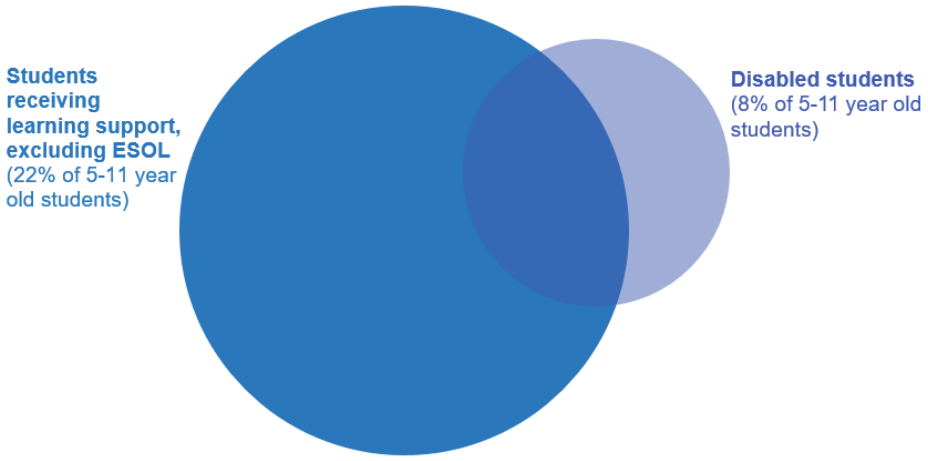
Table 4 also shows another group of learning support programmes, which are provided to both disabled and non-disabled students, but are much more likely to be received by disabled students. Disabled students receive the Behaviour Service, Communication Service, and Early Intervention services at between 6 and 24 times the rate of non-disabled students. As might be expected, impairment was predictive of receiving many of these supports – 17% of primary school-aged students with speaking impairments had received the Communication Service, and 22% had received the communication strand of the Early Intervention service.

The final group of supports in Table 4 are programmes that are offered to non-disabled students in sizeable numbers, but where disabled students nevertheless have a higher probability of access. Older disabled students are about three times more likely than their non-disabled peers to receive support from the Attendance Service; disabled students of all ages are about twice as likely to receive Reading Recovery; and younger disabled students are between three and four times more likely to receive support from Resource Teachers: Literacy (RTLit) or Resource Teachers: Learning and Behaviour (RTLB). About 22% of students with psychological or psychiatric impairments, and 20% of students with learning or speaking impairments, receive Reading Recovery. About 22% of students with psychological/psychiatric impairments also receive RTLB support, compared to 4% of non-disabled students.

**This does not mean that most students who receive learning supports are disabled.**

While disabled students have a higher likelihood of receiving most forms of learning support, this does not mean that most students who receive learning supports are disabled. Because the group of non-disabled students is much larger than the group of disabled students, the recipients of learning support are mainly students who do not have the sorts of impairments asked about in the disability survey. Figures 6 and 7 illustrate the overlaps between the populations of students receiving learning support (excluding ESOL) and disabled students for the 5-11 year olds and the 12-19 year olds, respectively. These show that the disabled student population is quite different from the population of students receiving learning support.

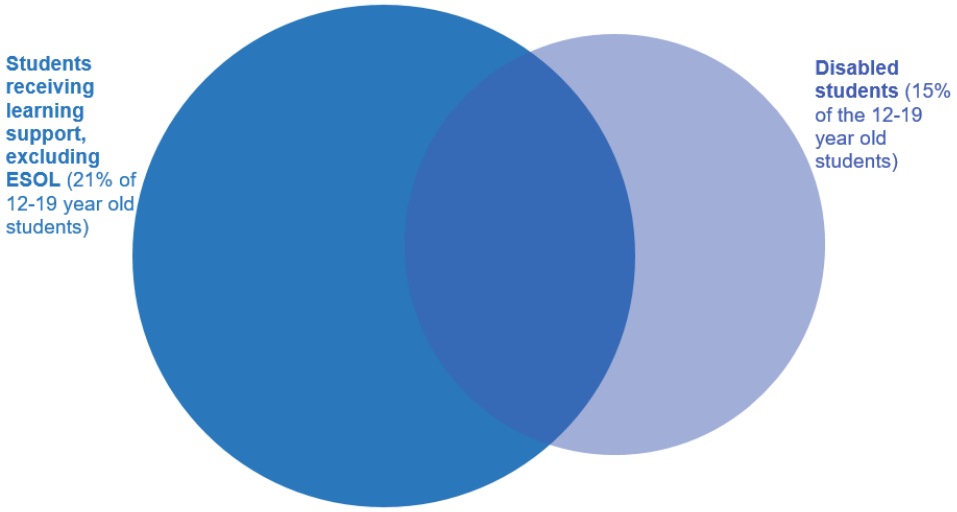
**Figure 6. Learning support receipt and disability (5-11 year olds)**




It is clear from these figures that the population of students receiving learning support and that of disabled students are two quite separate groups. About 22% of the students aged 5-11 years had some record of receiving learning support in the IDI. Of these, 79% are non-disabled students, and 21% are disabled. The difference between these groups means that receipt of learning support should not be used as a

proxy measure of disability in cases where detailed data on functional impairments are not available.

**Figure 7. Learning support receipt and disability (12-19 year olds)**

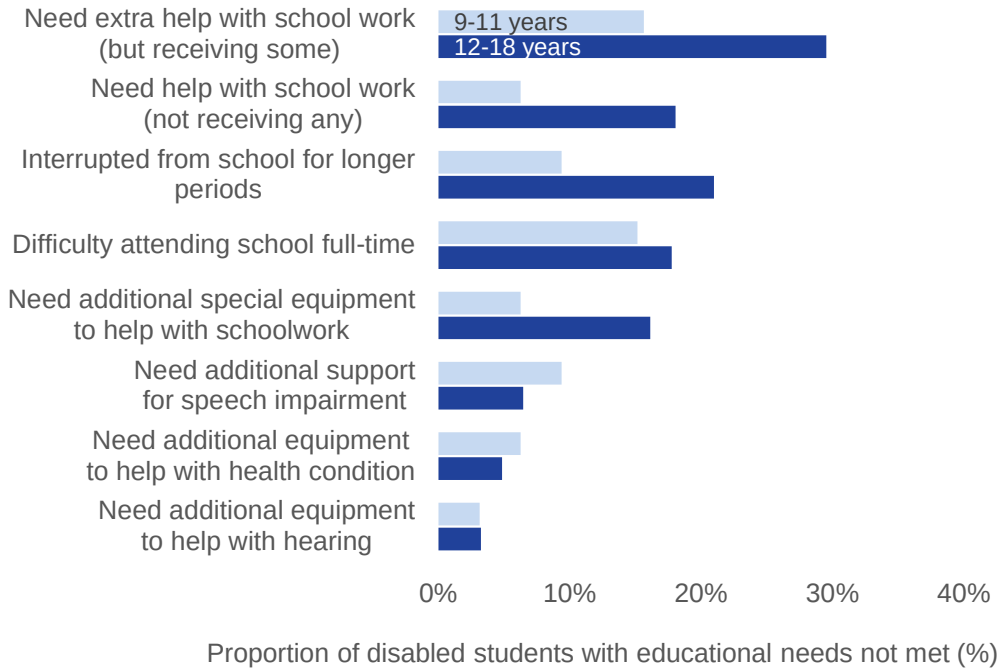



**One area of particular concern is the group of disabled students for whom we cannot find any record of learning support.**

One area of particular concern in these figures is the group of disabled students for whom we cannot find any record of learning support in the IDI. For the group of younger students, about two-fifths (41%) of disabled students did not have any record of Ministry-funded learning support, whereas for the group of older students, it was closer to three-fifths (59%). It is important to note that the disability survey identifies disability on the basis of a functional impairment – that is, there is a day-to-day activity that the student cannot perform or can only perform to a limited extent. This may therefore provide good reason for thinking that impairments as identified by the survey might indicate unmet need. This is particularly the case for impairments that are likely to be barriers to learning. When breaking down by impairment type, we found that one-third of 5-11 year old students with learning impairments did not have a record of receiving any Ministry-funded learning support. About a third of students with each of the psychological/psychiatric and hearing impairments also did not have a record of receiving any Ministry-funded learning support. While the IDI data on learning support are far from comprehensive, this may be evidence that at least some students in this group may represent unmet need for additional learning support.

To provide more direct evidence of unmet need, the disability survey asked parents or caregivers several questions about whether the student needed additional support at school, and whether they were receiving appropriate support. Figure 8 shows that the parents or caregivers of about 6% of 9-11 year old disabled students reported they needed help with school work and weren't receiving any additional support, and a further 16% reported that they were receiving some support but needed more. For 12-18 year old students, 18% were not receiving any support, and 30% were receiving some help but needed more. Other educational needs reported include difficulty attending school fulltime and interruption from attending school for longer periods. These results are consistent with the administrative data on school mobility and attendance, suggesting that impairments can cause unavoidable interruptions in attendance. This is a particular area where supports appear to be needed to ensure continuity of learning.

**Figure 8. Proportion of parents/caregivers reporting unmet educational needs**




## The educational attainment of disabled students

Ensuring all disabled students are supported to achieve their potential is one important indicator of inclusivity in education (Office for Disability Issues, 2016; ERO, 2015). The only school-based measure of educational achievement available in the IDI is the attainment of the National Certificate of Educational Achievement (NCEA). This measure of attainment is not comprehensive insofar as it does not fully recognise the full range of educational success that are important to students and their whānau (Ministry of Education, 2019a). In particular, for some disabled students, particularly with cognitive impairments, attainment measures may not always be meaningful. In the absence of better measures of student *progress*, attainment of qualifications is still an important outcome of senior secondary school because it is highly predictive of full participation in the labour market and can be used to determine eligibility for further education.

**A majority of disabled students left school having achieved NCEA Level 2 or 3.**

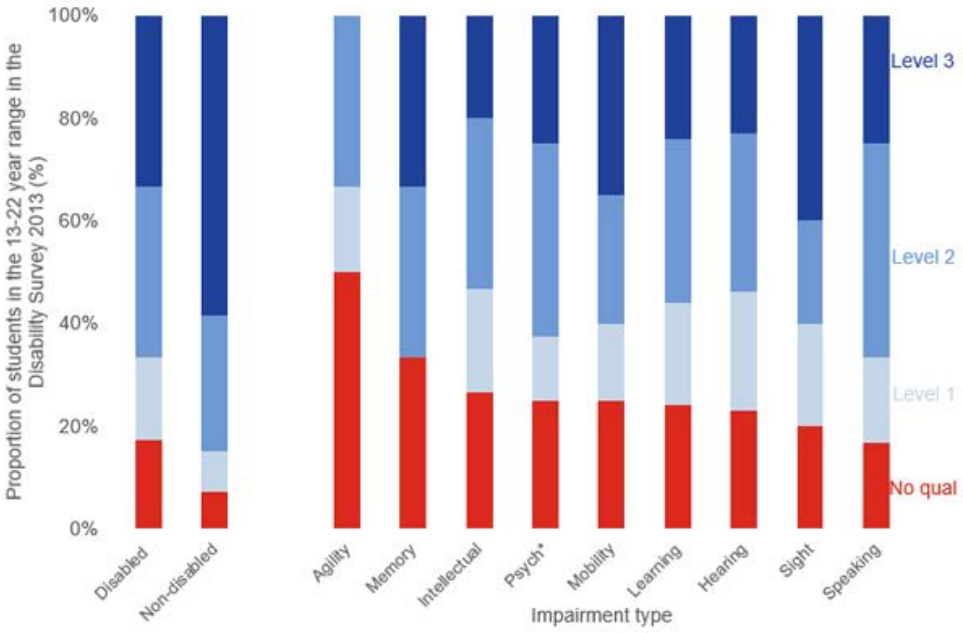
Figure 9 shows rates of NCEA (or equivalent) attainment for disabled and non-disabled students, as well as attainment by impairment type. The first important finding to note is that for each group of students (including each impairment type), there are many students who achieve highly. A majority of disabled students, as well as students with every type of impairment other than agility, left school having achieved NCEA Level 2 or 3 (or equivalent qualification). One third of disabled students leave school with Level 3 qualifications.

Figure 9 also shows that, as a group, fewer disabled students attain school qualifications than their non-disabled peers. Almost three-fifths (58%) of non-disabled students in our data attained Level 3 qualifications at school, compared to one-third of disabled students. Disabled students were more than twice as likely to leave school with no qualifications compared to non-disabled students (17% and 7%, respectively).

There are substantial differences between disabled students with different impairments. Students with agility impairments have the highest proportion (50%) of students with no school qualifications. Our analysis shows that about 90% of students

with agility impairments have multiple impairments. About three-quarters (74%) of students with agility impairments also have at least one comorbid cognitive impairment such as learning or intellectual impairment. These results suggest that a higher proportion of agility impaired students face increased barriers to attainment than students with other impairments that are not cognitive.[18]

**Figure 9. School attainment rates by impairment type**




Note: Students can have multiple impairments, and in this case they are included in all relevant groups. 'Psych' refers to psychiatric/psychological impairments.

Impairments associated with the highest attainment rates were communication or sensory impairments such as speaking, sight or hearing. This may be due to a combination of schools finding it easier to accommodate for these needs, and these impairments being less likely to be accompanied by cognitive impairments. About 41% and 23% of students with mobility and hearing impairments, respectively attained Level 3 qualifications while at school. When we considered students with only mobility or hearing impairments (and no other impairment), the proportion of students attaining Level 3 increased to 53% and 44% respectively.[19] The rate for students with solely mobility impairments was close to the rate of 58% for non-disabled students. These results show that for some disabled students, schools are able to accommodate learning needs and support them to attain at similar levels to their non-disabled peers. However, for others, there remain considerable barriers to attainment. For some, attainment will not be possible at all given the structure of the qualification system.

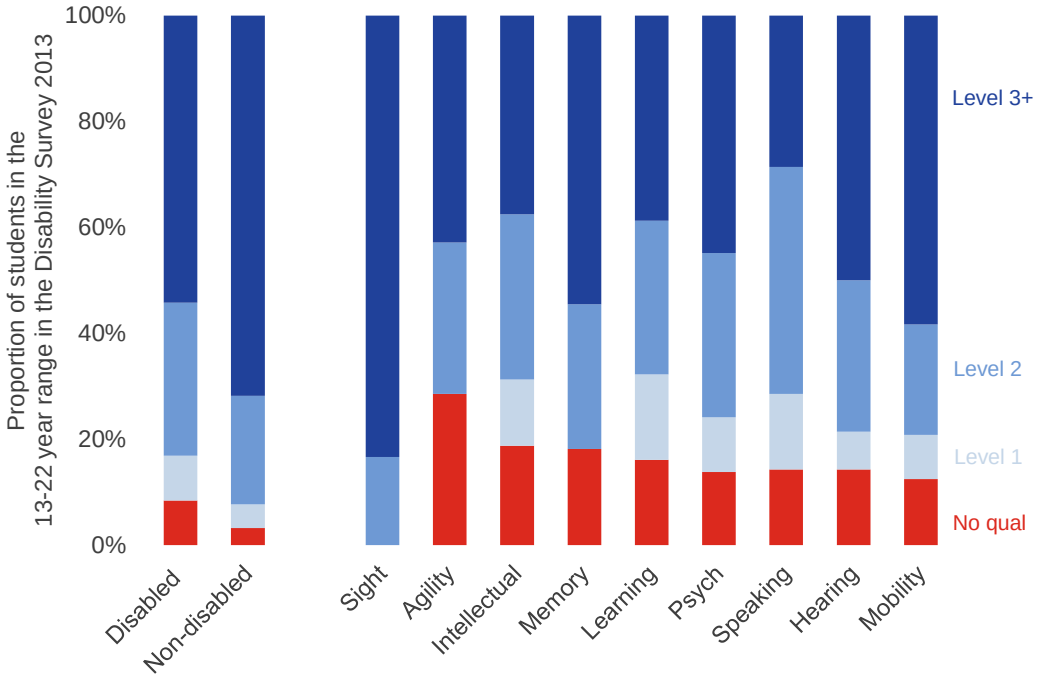
The difference in attainment between disabled and non-disabled young people declines considerably when we combine school attainment with later attainment of qualifications at tertiary institutions. Figure 10 shows the highest attainment between school and post-school qualifications. The proportion of disabled students with no qualifications is 8%, compared to 3% for non-disabled students. Conversely, attainment of Level 3 qualifications or higher for disabled students is 54% compared to 72% for non-disabled students. On this measure, vision impaired students do particularly well, with 83% attaining Level 3 or higher qualifications. Only a few vision

[18] *Only 28% of students with agility impairments identify this impairment as their main impairment. In contrast, 63% of vision impaired and 61% of students with psychiatric/psychological impairments identify them as the main impairment.*

[19] *Other impairment types such as speaking or sight did not have large enough student numbers to output from the IDI while protecting confidentiality, so we cannot report those results.*

impaired students have no qualifications at all, therefore the results were suppressed for confidentiality. We also find that the proportion of students with agility impairments who have no qualifications declines from 50% while at school to 29% in later life. These results are consistent with the findings of research by Earle (2019), also using the disability survey, which found that disabled people have higher tertiary participation rates than non-disabled people below degree level (though they were substantially less likely to participate in study for degrees). [20]

**Figure 10. Educational attainment for disabled students (including tertiary attainment)**




## Conclusion

**Many measures we examined appeared to show that the education system was not fully inclusive or supportive of success for disabled students.**

The government is committed to providing all disabled people with an inclusive, responsive, and quality education that enables them to achieve their potential. This report represents the most systematic attempt we are aware of to describe the outcomes and experiences of disabled students in New Zealand schools, and to assess the extent to which our education system is meeting our commitments and goals.

We found some indications that many disabled students are being supported by the education system to participate and achieve their potential. Participation rates for disabled students in early childhood education were identical to those for non-disabled students. There were only minor differences in school attendance between disabled and non-disabled students, and most of these differences are medical-related absences, rather than absences that might indicate disengagement. Many disabled students achieve the highest levels of attainment while at school, and some groups such as those with non-cognitive mobility impairments appear to achieve on par with non-disabled students. Disabled students also have very high participation in tertiary education (at least below Bachelor degree level).

However, many measures we examined appeared to show that the education system was not fully inclusive or supportive of success for disabled students. Disabled students were more likely to have moved schools, and about 8% of primary school-

[20] *In addition, Earle (2019) finds that disabled people aged 16-64 are less likely to be in full-time employment. Employment patterns for disabled people aged 16-39 years with lower support needs were found to be similar to those of non-disabled people in the same age range.*

aged disabled students had already attended at least four different schools. Disabled students were also more likely to have been stood-down, suspended, or be home-schooled in 2017 than their non-disabled peers. While disabled students were much more likely to receive learning support than non-disabled students, there were large numbers of disabled students for whom we could not find a record of receiving Ministry-funded support, including one-third of students with learning impairments. Parents and caregivers of disabled students reported that about a quarter of younger students and up to half of secondary school-aged students needed more help at school than they were currently receiving. For some students, this may impact on attainment: disabled students as a group attain school qualifications at lower rates than their non-disabled peers, and there appeared to be barriers to attainment for students with many non-cognitive impairments. Parents and caregivers of disabled students also reported barriers to social and extra-curricular activities, particularly for older students, which is likely to affect broader wellbeing.

The data used in this research are limited in several key ways, which are important to consider alongside the above findings. We measured outcomes and experiences in education primarily using existing administrative data collected by the Ministry, which cannot always capture the full range of success measures that are meaningful to people. The data are also limited in coverage in many cases. For example, our learning support data misses any additional support offered by schools, and is particularly incomplete for older disabled students. Finally, this report is based on a survey conducted in 2013 combined with administrative data up to 2017. It is not currently possible to provide a more up-to-date view on the experiences of disabled students.

**The government has recently announced a range of reforms that are aimed at many of the issues raised in this report.**

This last limitation is particularly relevant because the government has recently announced a range of reforms that are aimed at many of the issues raised in this report. In recent public engagements including the Korero Matauranga (as well as repeatedly in the years and decades prior to these engagements), disabled students, their whānau and advocates have told us clearly what needed to change for them in the education system. This included that the learning support system could be difficult to navigate, and did not meet what all disabled students needed to ensure an inclusive and quality education (Ministry of Education, 2019a; Ministry of Education, 2019b). Those concerns are consistent with findings from this research.

In response to these issues, the government has announced the Learning Support Action Plan. This plan contains six key priorities to improve responsiveness and inclusion in the education system.[21] Among them, it includes the introduction of new Learning Support Coordinators in schools, and the development of consistent screening tools. These actions are likely to reduce the time taken for students' needs to be identified, and will minimise the risk that some students miss out on support altogether. The Action Plan also includes priorities to strengthen early intervention and provide additional supports for neurodiverse learners, which will mean that early learning services and schools can draw on a wider range of supports to cover individual learners' needs. In related activity, the Ministry is also rolling out the Te Rito data sharing platform, which will make it easier for data to securely follow students between schools, as well as making data accessible to students and their whānau.[22]

Combined, these initiatives are likely to improve identification of support needs as they emerge, ensure continuity of support and learning when attendance is disrupted, and provide data to allow the education system to better assess how we are supporting success for disabled students. This will allow us to more confidently claim

[21] *The full Action Plan is available online at: https://conversation.education.govt.nz/conversations/learning-support-action-plan.*

[22] *For more on Te Rito, see https://education.govt.nz/news/early-stage-roll-outs-for-te-rito-student-information-sharing.*

that the education system is inclusive and enables all New Zealanders to achieve their potential. Disabled students deserve nothing less.

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For further information, questions or discussion around additional analysis and potential topics for future research, please contact Requests.EDK@education.govt.nz.

## IDI disclaimer

The results in this report are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand. The opinions, findings, recommendations, and conclusions expressed in this report are those of the author, not Statistics NZ or Ministry of Education.

Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this report have been confidentialised to protect these groups from identification.

The results are based in part on tax data supplied by Inland Revenue to Statistics NZ under the Tax Administration Act 1994. This tax data must be used only for statistical purposes, and no individual information may be published or disclosed in any other form, or provided to Inland Revenue for administrative or regulatory purposes.

Any person who has had access to the unit record data has certified that they have been shown, have read, and have understood section 81 of the Tax Administration Act 1994, which relates to secrecy. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

## References

Dixon, S. (2018). *Student mobility across schools and its links to under-achievement*. Available at https://treasury.govt.nz/publications/wp/wp-18-01.

Earle, D. (2019). *Disabled people and tertiary education: An analysis of the 2013 Disability Survey*. Available at https://www.educationcounts.govt.nz/publications/80898/disabled-people-and-tertiary-education.

Education Review Office (2015). *Inclusive practices for students with special education needs in schools*. Available at https://www.ero.govt.nz/publications/inclusive-practices-for-students-with-special-education-needs-in-schools/introduction

IHC (2020). *Survey: Students with disabilities face discrimination, bullying*. Available at https://ihc.org.nz/survey-students-disabilities-face-discrimination-bullying.

Kostanjsek, N. (2011). Use of the International Classification of Functioning, Disability and Health (ICF) as a conceptual framework and common language for disability statistics and health information systems. BMC Public Health, 11(4), p.1-6.

Ministry of Education (2009). *Good practice: Guidelines for principals and boards of trustees for managing behaviour that may or may not lead to stand-downs, suspensions, exclusions and expulsions. Part 2*. Available at https://www.education.govt.nz/school/managing-and-supporting-students/student-behaviour-help-and-guidance/stand-downs-suspensions-exclusions-and-expulsions-guidelines.

Ministry of Education, (2019a). *The voices of people with disabilities or in need of learning support*. Available at https://conversation.education.govt.nz/conversations/education-conversation/what-you-told-us/voices-of-people-with-disabilities.

Ministry of Education, (2019b). *Draft Disability and Learning Support Action Plan: Analysis of engagement feedback*. Available at https://conversation.education.govt.nz/conversations/learning-support-action-plan/what-you-told-us.

Office for Disability Issues (2016). *New Zealand Disability Strategy 2016-2026*. Available at https://www.odi.govt.nz/nz-disability-strategy.

Morgan, P., Farkas, G., Hillemeier, M., Wang, Y., Mandel, Z., DeJarnett, C. & Maczuga, S. (2019). Are students with disabilities suspended more frequently than otherwise similar students without disabilities? *Journal of School Psychology,* 72, p.1-13.

Statistics New Zealand, *Disability Survey 2013 – Commentary*. Available at http://archive.stats.govt.nz/browse_for_stats/health/disabilities/DisabilitySurvey_HOTP2013/Commentary.aspx.

Webber, A. (2020). *What is the relationship between attendance and attainment?* Available at https://www.educationcounts.govt.nz/publications/schooling/he-whakaaro-what-is-the-relationship-between-attendance-and-attainment.

Washington Group on Disability Statistics (2017). *The data collection tools developed by the Washington Group on Disability Statistics and their recommended use*. Available at http://www.washingtongroup-disability.com/publications/implementing.

World Health Organisation (2002). *Towards a common language for functioning, disability and health*. Available at https://www.who.int/classifications/icf/en