Research Review: Special and Inclusive Education
(Full Report)

Ottawa Carleton District School Board (OCDSB)

Elementary Program Review

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Table of Contents

1. Introduction

Continuous engagement in program review and system evaluations are key strategies that boards of education can use to examine potential barriers as well as explore ways to bolster student learning and academic success. As such, the Ottawa-Carleton District School Board (OCDSB) has undertaken a review of its elementary programs, particularly examining programs related to language acquisition and special education. This report synthesizes current research on special and inclusive education to support the OCDSB's internal review and considerations in planning.

This report adopts core principles drawn from critical disability studies, centring issues of access, equity, and disability justice. The field of critical disability studies employs a sociocultural model of disability, identifying disabling factors within the social, cultural, economic, and, in the case of education, academic conditions of school and schooling. As special education is primarily a system of supports and services designed to support disabled students, the report approaches research and recommendations based on opportunities to improve process, school/classroom conditions, and ultimately outcomes for students. Critical disability studies also recognizes that ability and disability do not exist in isolation and that students' experiences of ability and/or disability are deeply influenced by other sociodemographic factors and contexts. Therefore, this report will also draw on the theoretical framework of intersectionality (Crenshaw, 1989) and examine how different forms of bias collude to shape notions of ability and subsequent system responses.

The report will first describe where the research sits in terms of key debates and will describe critical concepts related to special and inclusive education. The discussion that follows is organized around the guiding principles of *Equity of Outcomes, Support, Experiences,* and *Access* that align with the OCDSB 2023-2027 Strategic Plan and the value statement of Equity, Inclusion, and Accessibility. The report concludes with a summary discussion and considerations for planning.

2. Key Debates

For decades, how to best reach and teach disabled students has been a core concern across education systems worldwide. Globally, disability is largely understood through the medical/individual model of disability (Mitchell, 2015). In this model, the *problem* resides within the student and only through withdrawal and/or intervention can the student be rehabilitated and enabled to return to, and participate in, mainstream education. The individual/medical model of disability situates individualized intervention as the key to students' academic success. As a result of our cultural adherence to principles of competition and efficiency in schools, there is a popular assumption that individualized intervention is most efficient, and thus most effective, when it occurs outside the mainstream classroom, under the guidance of specialized educators (Danforth et al., 2006).

Despite the notion that congregating students with disabilities into small, resource- and intervention-rich environments is so prevalent, there is a dearth of empirical research demonstrating that students fare better academically within a special education model (Barron et al., in press). In fact, international empirical research often supports an inclusive model of

education citing either no difference from a special education model or significant gains in student learning (Mitchell, 2010, 2015). Despite some studies having found no difference in student learning outcomes when taught in an inclusive setting, many other studies have found that students did experience barriers to learning when taught in self-contained special education placements[1] (Barron et al., in press; Parekh & Brown, 2019).

A recent systematic evidence review examined the implications of self-contained special education programming on students' academic outcomes as well as their experience of social belonging and engagement in school (Barron et al., in press). Drawing on studies emerging from similarly structured education systems to those in Ontario, Barron et al. (in press) drew on 15 international studies and found minimal support for self-contained class placements with only three studies offering positive outcomes related to students' social belonging and engagement. No study demonstrated positive effects of self-contained placements on students' academic outcomes and two studies directly reported harm related to placement in self-contained programs.

The identified concerns related to ability-grouping have been established in several international studies and systematic reviews (Archer et al., 2018; Domina et al., 2017; Hehir et al., 2016; Mitchell, 2010, 2015; Oakes, 2005; Organisation for Economic Co-operation and Development [OECD], 2012, 2019). Potentially limiting its success, ability grouping relies on two historically flawed premises. The first premise is that students' capacity can be accurately and objectively identified and categorized. Although the notion of ability is often evoked in schools, there is little agreement between researchers as to what it is (Gould, 1996; Sloan, 2013) and how it applies to students (Ladwig & McPherson, 2017). For instance, ability is often conceptualized as malleable and fluid when describing a student with "high" ability, but as static and unchangeable in students with "low" ability (Ladwig & McPherson, 2017). Due to the lack of conceptual coherence, Ladwig and McPherson (2017) have argued that the primary purpose of adopting such a construction of ability is essentially to rank and organize students in school. Additionally, studies have shown that educators' perception of student ability can be influenced by sociodemographic and program factors such as students' history of involvement in special education (Juhkam et al., 2022), socioeconomic status (Brummelman, 2023), as well as student identity factors (such as gender, racial identity, parental education, etc.) (Leonardo & Broderick, et al, 2011; Parekh et al., 2018b). Christensen (1996) challenged identification practices on the premise that they perpetuate deficit thinking as well as incorrectly suggest homogeneity within diagnostic/identification categories. Additionally, Christensen (1996) noted that many students identified as requiring special education did not demonstrate any pathology and that categorical-based instruction was ineffective.

The second flawed premise is that congregating low performing students together benefits students' learning. When examining the conditions of classrooms, students grouped into low ability groups/classrooms/streams often face low academic expectations (Archer et al., 2018), a reduction of instruction (Houtveen & Van de Grift, 2001; MacIver et al., 1995), programs characterized as having a lot of "breaks" (Kurth & Mastergeorge, 2012), and a lack of

[1] For the purposes of this review, please note that "self-contained special education classes or placements" includes students participating in a special education class either full time or with partial integration (excluding gifted unless specified) and is not disaggregated by exceptionality/program.

differentiation in approaches to teaching and learning (Parekh, 2022). Research has also shown that there can be inconsistent understandings of the purpose of self-contained classes where some students are placed in intensive intervention programs, where students cycle in, engage in intervention, and cycle back to the homeroom class, while other programs are positioned as a maintenance and management strategy (Qualitative interviews with Ontario educators, families, and students[2], Houtveen & Van de Grift, 2001). Despite the prevalence of ability grouping, students do not adopt a position of neutrality regarding their place in their school's hierarchy of ability (Archer et al., 2018). In fact, students are acutely aware of how others perceive their capacity, including how they have been organized to reflect their potential. Students have shared how the stigma related to placement in "low" ability groups has affected both their peer and family relationships as well as their sense of self (Archer et al., 2018; Gaymes San Vicente et al., in press; Parekh, 2022).

In 2019, the OECD released a study examining the implications of school choice and the organization of students by ability and/or social status. Following the review of empirical, multi-national evidence, the report stated,

> Taken together, this evidence suggests that sorting students into schools by ability or social status may adversely affect both the efficiency and equity of the school system. For instance, if low-ability students are more sensitive than high-achieving students to the composition of their classes, sorting students by ability across schools may have a negative impact on the aggregated performance of the school system; the reverse may also be true, depending on the nature and magnitude of peer effects. In addition, as disadvantaged students often struggle at school (because, for instance, they do not benefit from the same parental support as more advantaged students do), social and academic segregation in schools may create additional barriers to success for disadvantaged children and reduce equity in education. (OECD, 2019, p. 20)

These findings are in line with reports that the OECD released in 2012 when it concluded that student performance outcomes suffered when education systems organized students by ability:

> Successful PISA countries also invest something else in their education systems: high expectations for all of their students. Schools and teachers in these systems do not allow struggling students to fail; they do not make them repeat a grade, they do not transfer them to other schools, nor do they group students into different classes based on ability. Regardless of a country's or economy's wealth, school systems that commit themselves, both in resources and in policies, to ensuring that all students succeed perform better in PISA than systems that tend to separate out poor performers or students with behavioural problems or special needs. (OECD, 2012, p. 4)

[2] Some data shared for this report is drawn from qualitative interviews conducted with families, students and educators across Ontario as part of several different research projects and teams, including federally funded projects such as Transformative Action Towards Equity and Critical Transitions (PI Parekh, G), the Inclusive Early Childhood Service System project (PI Underwood, K) and reviews produced for Ontario based school boards. Some data is yet unpublished, but due to the relevance to this review has been included. Such data will be hereafter referred to as "Qualitative interviews with Ontario educators, families, and students." For more information, please contact the report author: Gillian Parekh (parekhg@yorku.ca).

In addition to cited detrimental performance outcomes for schools and school systems, as well as impacts on students' academic achievement, many studies have shown that ability grouping and self-contained special education programming have been tied to increased experiences of bullying and social isolation (Barron et al., in press).

Importantly, recent research is further calling into question the criteria used to refer students to special education, implement particular interventions, and/or construct students as having low capacity (Barron, 2024; Qualitative interviews with Ontario educators, families, and students). As the special education model of intervention often mirrors that of a medicalized or rehabilitation model (Valle & Connor, 2010), there is a sense that decisions are based on objective measures of achievement. However, there has been a longstanding and growing field of research suggesting that notions of normative ability often mirror the experiences of Eurocentric, middle-class students (Brantlinger, 2006; Erevelles et al., 2006). Bolstering these claims are international research studies revealing that, in both identification and placement practices, there are significant issues with disproportionality, marked in particular by the overrepresentation of racialized, economically marginalized, and predominantly male youth identified through and placed in special education programming (Artiles et al., 2010; Connor, 2017; De Valenzuela et al., 2006; Ferri & Connor, 2005; James & Turner, 2017; Reid & Knight, 2006; Skiba et al., 2006). Conversely, studies have also shown that students who are congregated into elite or enriched programming, with high expectations for achievement and ease of transition into postsecondary opportunities, are typically marked by the overrepresentation of white, affluent students (Gaztambide-Fernández et al., 2013; Leonardo & Broderick, 2011; Mansfield, 2015; Parekh et al., 2018a). As such, when discussing ability and/or ableism, it is critical to adopt an intersectional lens and consider how the construction of ability and disability interrelate with racialized, classed, and gendered constructions of capacity. (See Section 8, Equity of Access, for more information.)

3. Critical Concepts

3.1 Deconstructing Disability

Much like the concept of ability, the notion of disability can be incongruous across education systems. Although disability is often discussed in special education with terms such as "exceptionality" and "special needs," many, particularly those within the disability community, have taken exception to the use of euphemisms that erase or replace the term "disability" (Gernsbacher et al., 2016; Longmore, 1985). Through recent consultations, many disabled people have called for the discontinuation of the use of terms such as "special needs" or "special education needs," arguing that all people have needs and the needs of disabled people should not be considered "special" but a natural part of being human (see Associated Press, 2022; Holly, 2024; National Center on Disability and Journalism, 2021). Additionally, disability scholars have argued that many children who fail to meet academic, social, or behavioural expectations outside of school are diagnosed with disability, yet inside of school, they are identified with special education needs. As such, they argue that the difference is really based on where and how disability is being constructed (Underwood, 2009).

The special education system is structured to identify and organize students through a dozen disability categories (e.g., learning disability, mild intellectual disability, physical disability). However, in Ontario, students are able to access special education services and supports, including an Individual Education Plan (IEP), without a formal identification (Ontario Ministry of Education, 2004). Interestingly, only about a third of students who are institutionally identified as having a disability and/or participate in special education also self-identify as having a disability (Parekh & Brown, 2020).

Table 1 draws on data from the Toronto District School Board (TDSB) based on two cycles of their Student Census (2006-07 & 2016-17) and examines the relationship between institutional and self-identity of disability (Parekh & Brown, 2020, p. 29). As the data indicates, there is a fair amount of disagreement across categories.

Table 1. Self-identification of disability across institutional characteristics, 2006–07 & 2016–17 (Parekh & Brown, 2020, p. 361)

	Institutional Variables	Proportion of students who self-identify as having a disability	
		Year 2006-07 (N = 6,958)	Year 2016-17 (N = 9,713)
Formal Exceptionality	Blind/Low Vision	100.0%***	90.0%****
	Deaf/Hard of Hearing	97.0%	94.5%
	Physical disability	90.5%	100.0%
	Developmental disability	87.1%	81.7%
	Autism	60.3%	60.5%
	Learning disability	37.7%	40.5%
	Language impairment	30.4%	39.5%
	Mild intellectual disability	30.1%	48.4%
	Behaviour	25.5%	26.5%
Only IEP	IEP only	12.7%	20.3%
Class Placement	Self-contained special education classes	44.2%***	58.5%***
	Formal identification – Regular classes	35.4%	40.5%
Total	Overall Proportion of students in special education	27.7%***	31.7%***

Note: *** = significant at .001 using X^2

Researchers at the York Region District School Board, Research and Assessment Services (YRDSB) replicated a similar version of the study examining self and institutional identity of disability and found similar trends and discrepancies (Table 2).

Table 2. Self-identification of disability and key exceptionality (YRDSB, 2021, p. 48)

Do you consider yourself to be a person with a disability?

Response	Autism	Behavioural	Developmental Disability	Gifted	Language Impairment	Learning Disability	Mild Intellectual Disability	Physical Disability	Other Exceptionality	Without SEN	Total
Yes	42.9%	26.1%	55.6%	5.6%	19.4%	26.1%	23.4%	67.0%	60.3%	2.5%	6.8%
No	33.9%	49.2%	17.4%	84.0%	58.8%	50.1%	50.4%	16.5%	19.9%	88.2%	81.6%
Not Sure	13.9%	18.2%	15.3%	8.5%	16.7%	17.1%	15.9%	11.7%	12.5%	6.7%	8.3%
I Do Not Understand the Question	1.4%	1.7%	4.9%	<1%	1.1%	1.6%	2.5%	1.0%	2.2%	0.9%	1.0%
I Prefer Not to Answer	8.0%	4.8%	6.9%	1.6%	4.1%	5.1%	7.8%	3.9%	5.1%	1.7%	2.3%
Total	765	1,129	144	2,421	468	4,807	552	103	136	41,437	51,962

†Where percentages are less than 0.5%, "<1%" is shown

Source: Every Student Counts Survey and Student Information System

Extending the analysis to the Canada Disability Grant, a grant offered to postsecondary students who apply and demonstrate evidence of disability, it was interesting that of TDSB students who had been institutionally identified through school or self-identified as having a disability through the grant process, only 12.5% had both (Brown et al., 2024).

Table 3. Relationship between institutional identification and self-identification of disability through the Canadian Disability Grant (Parekh, et al., 2024a, slide 13).

	Percent	N
Institutional ID only	68.6	2690
Both self and institutional ID	12.5	490
Self-ID only	18.9	740
Total	100.0	3920

Although many students who are institutionally identified with disability do not self-identify as disabled, there are also many students who self-identify as having a disability who remain outside the special education system. Again, drawing on data from the TDSB, the different configurations of self (including unsure) and institutional identification of disability accounts for over 30% of the student population (Brown et al., 2024).

Table 4. Disability identity categories (Brown, et al., 2024, slide 8).

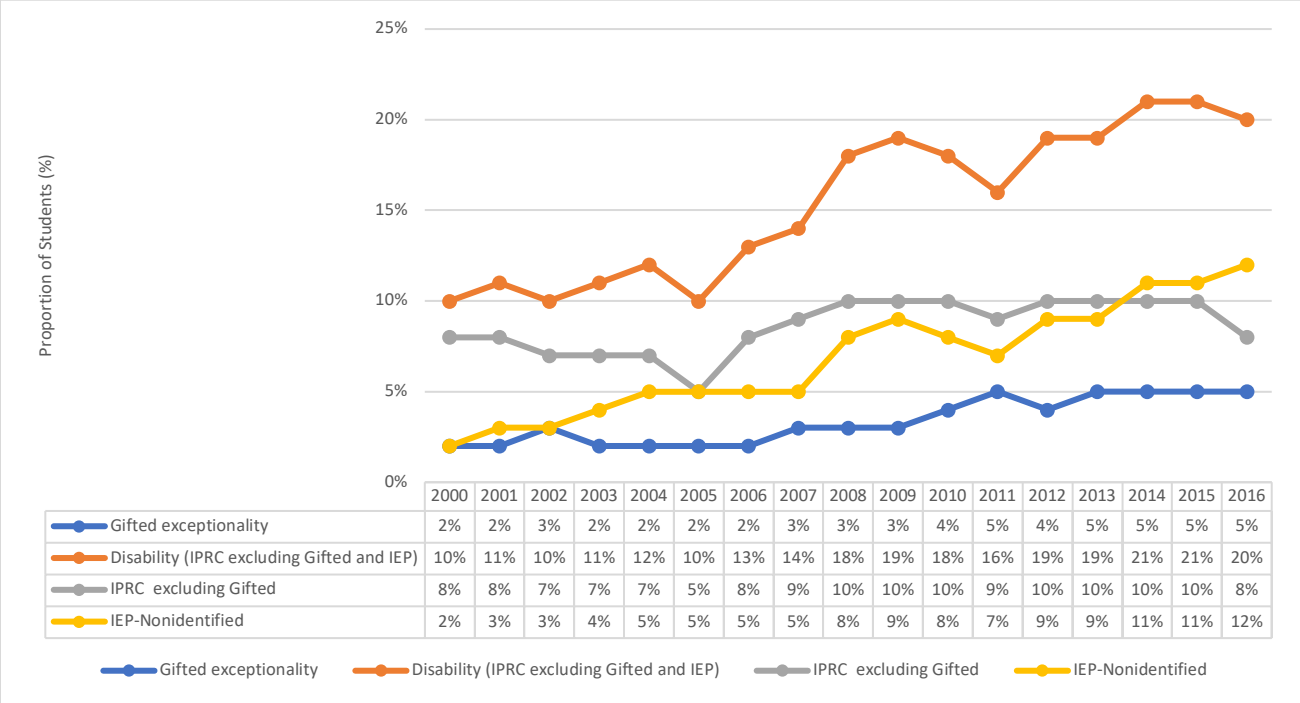
Self and Institutional ID	5.6%
Self and NO Institutional ID	4.4%
Self (Unsure) and Institutional ID	2.7%
Self (Unsure) and NO Institutional ID	8.4%
NO Self and Institutional ID	10.2%
NO Self or Institutional ID	68.7%

Recent research has shown that when students self-identify as having a disability, even when not involved in the special education system, they are at a significantly higher risk (almost twice as likely) of not applying to any postsecondary education program following high school (Brown et al., 2024). Risk continues to be significantly high even when controlling for students' sociodemographic characteristics, and when school and achievement factors have been included in the regression model (See Table A1 in Appendix for regression table).

The incongruous nature of self and institutional identification of disability further emphasizes the need for an inclusive approach to education. Where and how students struggle with curriculum and learning may not be explicitly clear or documented, yet still exists and may have significant implications on students' academic futures.

In addition, based on data from the TDSB, the proportion of Grade 9 students involved in special education (excluding gifted) has doubled over a period of 16 years (2000-2016). Accounting for students who have been identified through IPRC as well as students who have only been placed on an IEP (no formal identification), Brown et al. (2024) found the rate of students accessing special education rose from 10% in the year 2000 to 20% in 2016.

Figure 1. Proportion of Students with Disability, 2000 to 2016 Cohorts (Brown, et al., 2024, slide 12)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Gifted exceptionality	2%	2%	3%	2%	2%	2%	2%	3%	3%	3%	4%	5%	4%	5%	5%	5%	5%
Disability (IPRC excluding Gifted and IEP)	10%	11%	10%	11%	12%	10%	13%	14%	18%	19%	18%	16%	19%	19%	21%	21%	20%
IPRC excluding Gifted	8%	8%	7%	7%	7%	5%	8%	9%	10%	10%	10%	9%	10%	10%	10%	10%	8%
IEP-Nonidentified	2%	3%	3%	4%	5%	5%	5%	5%	8%	9%	8%	7%	9%	9%	11%	11%	12%

If a system congregates resources outside the homeroom or mainstream class, the rapid growth of students accessing special education in school raises the question of sustainability. As noted earlier, a reorientation towards greater inclusion should maximize the number of students who can access support directly in their classroom.

3.2 Ability Grouping

Ability grouping is the practice of organizing students into groups, classes, programs, and streams based on students' perceived and/or demonstrated ability. Ability grouping can be informal such as in-class groups organized by a particular skill, reading level, or proficiency in mathematics, where students are assigned work that mirrors their expected capacity and engage with similarly achieving students. Ability grouping can also be formal such as organizing students into classes and programs denoted by their perceived ability to achieve. Explicit examples of formal ability grouping include self-contained special education programs (including gifted), academic programs of study (junior and upper-year secondary school streaming), as well as programs such as the International Baccalaureate program and Advanced Placement. Ability grouping can also exist with interest-based programs, such as specialty arts programs or French Immersion, where students pursue programs based on interest, but where access to enrolment may also include ability-based criteria (Smaller, 2014).

The international research on ability grouping is complex and not without its controversy (Francis et al., 2017). For instance, when drawing on data or meta-analyses spanning several studies worldwide, it can be difficult to discern how practices are defined and comparable (Dracup, 2014). Regardless, there is a dearth of research supporting the overarching benefits of ability-grouping (Francis et al., 2016, 2019; Mitchell, 2015; Schofield, 2010), showing a clear lack of support for between-class ability grouping (Steenbergen-Hu et al., 2016) with particularly negative impacts on lower-achieving students (Francis et al. 2017). In addition, ability grouping has also been linked to replicating and reproducing social, racial, cultural, and economic inequity (Artiles et al., 2010; Connor, 2017; De Valenzuela et al., 2006; Duncan-Andrade & Morrell, 2008; Ferri & Connor, 2005; Francis, 2020; James & Turner, 2017; Mitchell, 2010, 2015; Reid & Knight, 2006; Skiba et al., 2006).

3.3 Ableism and Education

Ableism is essentially the privileging of ability whereby someone is advantaged based on perceived or demonstrated capacity. As such, ableism inherently leads to the marginalization and discrimination of people with disabilities (often described as disablism) (Baglieri & Lalvani et al., 2020; Goodley, 2014; Parekh, 2022). Identifying ableism in education can be particularly challenging as the core aims of education are to build capacity and develop proficiency across a number of fields and skills. Educators are often encouraged to incentivize the demonstration of ability by offering awards, perks, or additional opportunities to students who excel in their classes. The demonstration of academic excellence or classroom compliance may lead to student leadership opportunities, additional play time or time with friends, and so on. While skill development and growth in capacity remains essential in education, it is critical that students are not invertedly advantaged or disadvantaged based on their capacity to perform in school. This principle also applies to how students are organized into programs and placements.

3.4 Inclusive Education

Inclusive education may be one of the most misunderstood concepts in education. Beginning with the aim of integrating students with disabilities into mainstream education, inclusive education has evolved to centre access, inclusion, and equity in education in relation to all facets of students' identity and experience (Ontario Ministry of Education, 2014). Despite its evolving nature, popular conceptions of inclusion are often distilled down to class placement, punctuating the difference between self-contained special education and "inclusion" in mainstream education; effectively describing integration. However, for disability studies scholars, integration posited as inclusion is insufficient to address disability discrimination and enable students the greatest opportunity for academic success. In addition to Parekh and Underwood's (2015) compilation of characteristics denoting what inclusion is and is not, inclusion requires ongoing identification of and resistance to ableism as well as its many intersecting forms of discrimination.

Describing the conditions of an inclusive classroom, Parekh and Underwood (2015, pp. 4–5) have suggested the following definitions:

> 1) An inclusive classroom is a place where all students experience a sense of belonging and social citizenship (e.g., membership, inclusion, shared power, and value) (Parekh, 2014).
> 2) An inclusive classroom modifies the environment to fit the student, not the student to fit the environment.
> 3) An inclusive classroom is a space where all identities and cultures (including disability culture) are celebrated.
> 4) An inclusive classroom prioritizes the right to participation and focuses on setting a positive climate where social engagement and friendships can be promoted (Underwood, 2013).
> 5) An inclusive classroom rejects deficit thinking and does not segregate or organize students according to ability.

Addressing some popular misconceptions of inclusion, Parekh and Underwood (2015, pp. 4–5) described inclusion as follows:

> 1) Inclusion is not assimilation (Slee, 2008). The goal of inclusion is not to "normalize" students or create sameness within a classroom. Inclusive education celebrates diversity and creates a space where all students with disabilities can feel a sense of pride.
> 2) Inclusive education does not restrict opportunities and spaces where students with disabilities can be together. Students with disabilities should have the opportunity to meet, and to create networks and communities of support[3].

[3] Added footnote for context: this recommendation is not to be conflated with organizing students into a class, but rather ensuring disabled students have the option, agency, and opportunity to spend time together at school.

3) Inclusive education is not drawn from a template; there is no "one-size-fits-all" formula. Inclusive schools and classrooms are organized and responsive to the demographics of students in attendance (Artiles, Kovleski, & Waitoller 2011).
4) Inclusive education is not static; there is no end point where the inclusive education project is complete. Inclusive education is a continual state of becoming. It is a project that requires continuous review, assessment and revision (Artiles, Kovleski, & Waitoller, 2011).

As the concept of inclusion is complex, there are particular implications for research. For instance, many of the studies citing positive outcomes related to inclusion, may, in fact, be conflating integration for inclusion and be speaking solely to placement in the absence of all other facets to inclusion. Although this is not ideal, it does lend further support to the importance of placement as one of the key elements in advancing inclusion.

4. Guiding Equity Principles and a Note on Research

The guiding principles of equity of outcomes, support, experiences and access are aligned in the OCDSB 2023-2027 Strategic Plan and its value statement of *Equity, Inclusion, and Accessibility.* This report has synthesized and organized both international and Ontario-based research around these commitments. It is important to note that, to date, the Toronto District School Board (TDSB) has the most comprehensive dataset linking student sociodemographic information with program, achievement, pathway, and other administrative data in Canada. As such, much of the quantitative evidence included in this review is drawn from TDSB data. It is important to note, that empirical studies drawing on aggregated data related to program and placement can obscure students' individual circumstances, experiences, and trajectories. To address this potential erasure, qualitative research aims to locate and share experiences that do and do not mirror quantitative trends. The majority of the qualitative data addressed through this review was drawn from a number of Ontario and Canada-wide studies, many of which were federally funded through the Social Science and Humanities Research Council.

5. Equity of Outcomes

The Ontario's Ministry of Education publicly reports five-year graduation rates for every Ontario school board situating graduation as a core aim of public education. While graduation is, indeed, important, there is a growing pool of evidence demonstrating that the key to long-term economic independence, longevity, and health is postsecondary education (Ballingall, 2015; Fonseca et al., 2011; Irwin, 2015; Kearney, et al., 2015). The Government of Canada (2017) has also projected that in the next few years the majority of new jobs will require postsecondary education. Similarly, Strohl et al., (2024) predicted that 85% of future good jobs in the United States (defined by income) will require some postsecondary education. In 2024, the Canadian Institute of Actuaries stated that "increasingly, studies are showing that while there is a relationship between wealth and longer life, educational attainment is the primary driver of differences in both wealth and longevity. Education affects longevity through its link to better employment, income generation and information gathering, which in turn influences the adoption of healthier

lifestyles" (Aris et al., 2024, p. 2). As such, there is some urgency in situating access to postsecondary education as a core aim of public education.

There may be some question as to why access to postsecondary education should be of concern when planning elementary programs, as elementary school students have years ahead of them to make program and course-related decisions. *However, there is significant research building that evidences the critical importance of elementary experiences and program participation on shaping student pathways towards postsecondary education.* Currently, drawing on data from the TDSB, students with disability, either self or institutionally identified, make up over half of students *not* going on to postsecondary education and are therefore at heightened risk to encounter future barriers to employment and maintaining long-term health (Brown et al., 2024). As such, a focus on what happens to elementary students in relation to disability is of critical importance for informing potential interventions and planning.

5.1 Elementary School Factors that Implicate Outcomes

Although discussions on academic streaming tend to focus on program and school choice at the secondary level, many scholars and advocates argue that streaming can begin in elementary school and can hold long-term implications for students (Brown et al., 2020; Follwell & Andrey, 2021; Quieser & De Araujo, 2017). Additionally, many school boards offer an array of specialization options for students in the elementary years, including French Immersion, special education, gifted, arts and sports-based programming, as well as alternative education programs (Parekh, 2014; Parekh et al., 2011). While many of these program options appear interest-based, as noted earlier, they are also arguably ability-based or intended to draw students based on a particular expectation of capacity. As such, participation in elementary programs can establish pathways towards students' access to secondary school programs, and ultimately, shape students' options for postsecondary education (Parekh & Gaztambide-Fernández, 2017).

Three studies, drawing on TDSB data, examined the relationship between elementary school factors and access to postsecondary education (Brown & Parekh, 2013; Brown et al., 2020). Researchers found that low achievement on students' EQAO assessments, students' involvement in special education, and suspension each put students at risk for both exclusion from the Academic Program of Study (POS) in Grade 9 and future access to university (Brown & Parekh, 2013). The study also showed that risk factors were not weighted equally and had a cumulative effect, meaning that if students had more than one of the identified characteristics, the likelihood of accessing Academic programming or university decreased. For instance, if students had all three identified characteristics (low EQAO achievement, involvement in special education, and suspension), the likelihood of accessing the Academic Program of Study in secondary school dropped to 14% and access to university dropped to 5% (Brown & Parekh, 2013).

Complementing this analysis, researchers also explored the impact of a number of elementary factors on students' access to postsecondary education (college and university) (Brown et al., 2020). Results showed that over half of students with a higher than 10% absenteeism rate in Grade 4, students who were taught in self-contained special education classes in Grade 5, or students who had been suspended at any point during elementary school did not apply to any postsecondary education. These identified factors were also cumulative. Of students who had all

three risk factors, 88% did not apply to postsecondary education. When integrated into a logistic regression model controlling for demographic and school-based factors, students who had been suspended in elementary school were almost 3.5 times as likely to *not* apply to postsecondary, with students in self-contained special education over 2.5 times as likely, and students with high absenteeism being 1.1 times as likely (Brown et al., 2020).

Examining elementary factors in a different way and adding report card marks to the analysis, a recent study drawing on TDSB data included a number of known elementary factors that had been shown to have a relationship with postsecondary access (Brown et al., 2023).

These factors included:

- attending self-contained special education classes,
- being suspended during the academic year,
- high absenteeism, and
- low achievement (through elementary report card marks, or ERC) in reading, writing, and/or mathematics.

Interestingly, after all factors had been included in the model, participation in a self-contained special education class was evidenced to be the most significant factor in predicting that students do *not* go on to postsecondary education (college or university). In fact, despite accounting for elementary achievement, absenteeism, and suspension, students participating in a self-contained special education class were over four times as likely to *not* apply to any postsecondary education program (university or college) (Brown et al., 2023) (see Table A2 in appendix for regression table).

5.2. Implications Specific to Self-contained Special Education Programming

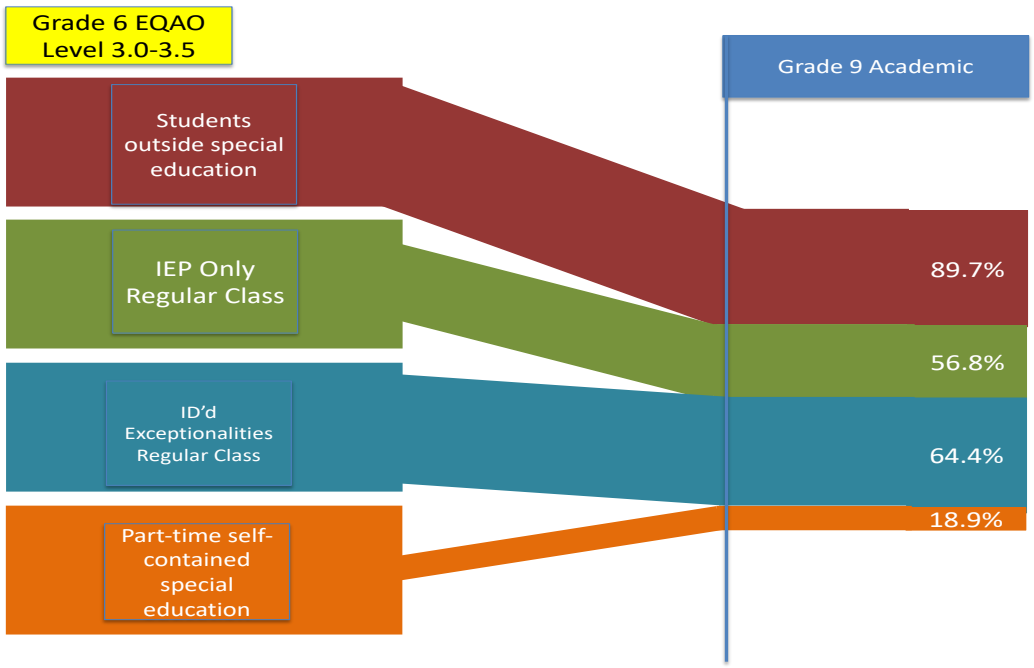
There are several important milestones to consider when tracking students' long-term outcomes. For example, who has access to the Academic POS in Grade 9, completes graduation on time (in four years), and has access to postsecondary education are all important indicators of students' future academic options (Brown et al., 2013). The example of longitudinal tracking below shows that, even when comparing students who have similar special education identifications and characteristics, students participating in self-contained special education programs are less successful in meeting key academic milestones. For instance, students identified with a learning disability or who only had an IEP (no exceptionality) and participated in self-contained special education classes were far less likely to graduate on time, confirm an offer to an Ontario university, or access postsecondary education. Interestingly, both groups participating in congregated classes were more likely to confirm an offer to college than students taught in integrated settings. Despite the identified differences in outcomes, often such approaches to longitudinal tracking do not address questions regarding the role of student achievement.

Table 5. The Grade 9 cohort 2006–11, students with special education needs Grade 7 (2004) and status up to Grade 12 (2011). (Brown, et al, 2013, 2).

Subgroups (Grade 7 Status)	Level 3-4 EQAO Grade 6 Reading	Level 3-4 EQAO Grade 6 Math	Grade 9 Academic	Graduation	Confirm University	Confirm College	Confirm Post-secondary	N
Gifted	93.0%	95.7%	99.4%	92.9%	68.4%	14.5%	82.9%	310
Students without Special Education Needs	67.7%	68.5%	82.0%	83.2%	54.0%	12.8%	66.8%	11,394
LD (Total)	18.7%	25.3%	22.8%	63.8%	12.6%	21.9%	34.5%	657
IEP only (Total)	25.8%	29.3%	36.1%	61.3%	17.7%	21.0%	38.7%	1,083
LD and IEP Categories								
A. LD- Congregated	14.0%	22.4%	15.6%	59.1%	8.2%	23.8%	32.1%	474
B. LD- Integrated	30.1%	32.4%	41.5%	76.0%	24.0%	16.9%	41.0%	183
C. IEP only-- Congregated	8.6%	10.8%	12.5%	56.6%	5.9%	23.7%	29.6%	152
D. IEP only-- Integrated	29.7%	32.7%	41.4%	62.1%	21.1%	20.8%	41.9%	573
E. IEP only-- NO Special Education Record	26.5%	31.2%	37.7%	62.0%	17.3%	20.1%	37.4%	358
MID	4.0%	5.1%	3.8%	44.2%	3.0%	17.7%	20.7%	265
Other Exceptionalities	21.6%	17.9%	14.3%	38.7%	9.2%	12.4%	21.6%	217
All Students in Grade 7 (2004) and Grade 12 (2011)	**61.3%**	**62.6%**	**73.5%**	**79.4%**	**47.9%**	**13.7%**	**61.6%**	**13,926**

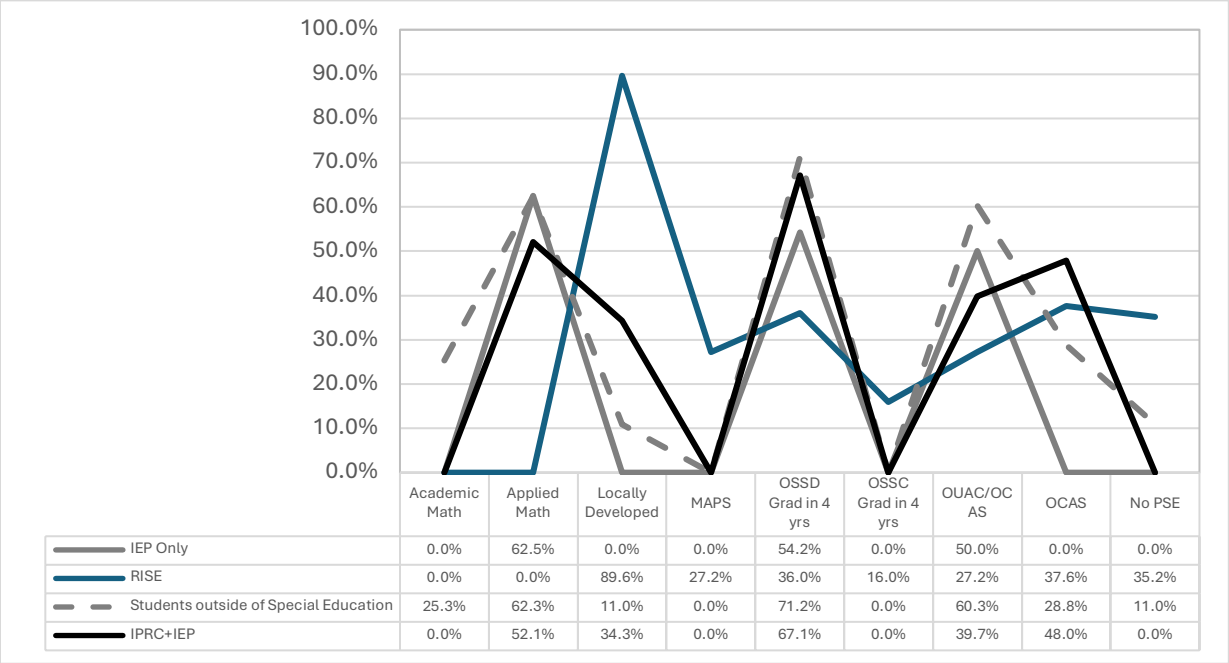
To better understand the role of a program in relation to student outcomes, a study drawing on TDSB data examined outcomes related to student participation in a part-time self-contained special education program and access to Grade 9 Academic programming (Parekh & Brown, 2019). Controlling for achievement (Grade 6 EQAO), the study explored the proportion of students' accessing Grade 9 Academic based on their participation in the regular class (elementary school), their special education status (IPRC/IEP only), and participation in a part-time special education class. Results revealed that when comparing like-achieving students, students participating in part-time special education experienced far greater barriers in accessing Academic programming in Grade 9. For example, students outside of special education, who were scoring well on their Grade 6 EQAO mathematics assessment (3.0–3.49) had an access rate of 89.7% compared to 18.9% for similarly achieving students participating in part-time special education class.

Figure 2. Proportion of students accessing Grade 9 academic courses (Grade 6 EQAO Level 3.0–3.49) (Parekh & Brown, 2019, 124)



Replicating this methodology and drawing on data from the Greater Essex County District School Board, similar trends emerged (Parekh et al., 2024). Due to low numbers of students, the data only included students who scored 1 or below on, but who were still eligible to participate in, the Grade 6 EQAO math assessment. Even when controlling for student achievement, students participating in a part-time special education program (RISE) were far more likely to pursue Locally Developed courses and enrol in certificate programs in high school. They were notably less likely to graduate with an OSSD in four years and more likely to *not* apply to postsecondary education.

Figure 3. Trajectories of RISE for students achieving Level 1 or below Grade 6 EQAO math, Student Information System, June 2023, (Parekh et al., 2024, Slide 19).



	Academic Math	Applied Math	Locally Developed	MAPS	OSSD Grad in 4 yrs	OSSC Grad in 4 yrs	OUAC/OCAS	OCAS	No PSE
IEP Only	0.0%	62.5%	0.0%	0.0%	54.2%	0.0%	50.0%	0.0%	0.0%
RISE	0.0%	0.0%	89.6%	27.2%	36.0%	16.0%	27.2%	37.6%	35.2%
Students outside of Special Education	25.3%	62.3%	11.0%	0.0%	71.2%	0.0%	60.3%	28.8%	11.0%
IPRC+IEP	0.0%	52.1%	34.3%	0.0%	67.1%	0.0%	39.7%	48.0%	0.0%

Based on the results of both studies, where student achievement was controlled, the role that program and placement can play is further drawn into question as producing potential barriers to student learning and access.

5.3. Why Are Secondary School Pathways Critical to Discussions of Elementary Programs?

There is an important relationship between elementary education and the level of courses taken in Grade 9. While the Province of Ontario has collapsed the Academic and Applied pathway for Grade 9, it is still unclear whether the move has increased participation in Academic courses for Grade 10. However, prior to this structural change, Grade 9 and Grade 12 programming were also highly correlated with each other as well as with postsecondary pathways (see Table 7 for PSE outcomes). For example, “For students who took the majority of their courses at the Academic level in Grade 9, 87.6% went on to take the majority of their courses in Grade 12 at the University level. For students who took the majority of their courses at the Applied level, just over a quarter made it into University-level courses in Grade 12” (Parekh et al., 2021, p. 13).

Table 6: Relationship between Grade 9 programming and Grade 12 outcomes (Parekh, et al., 2021, 14)

	University	College	Other POS	Total
Academic	87.6%	6.9%	5.5%	100.0%
Applied	28.8%	53.9%	17.4%	100.0%
Overall	77.1%	15.3%	7.6%	100.0%

Based on TDSB data, POS across all four secondary school grades (Grades 9, 10, 11, and 12) were included a logistic regression analysis with an outcome variable of students' access to postsecondary education (university and college). Accounting for students' sociodemographic characteristics, it is clear that POS continues to play a significant role in students' access to postsecondary education. For instance, students taking the majority of their courses at the Academic level in Grades 9 and 10 were 1.2 times as likely to access college or university. However, students taking the majority of their courses at the University level in Grade 11 and 12 were 1.5 and 3 times (respectively) as likely to access postsecondary education.

Table 7. Regression analysis results on students' access to postsecondary education, university and college (Parekh, et al., 2021, 13)

	Inclusive of Grade 9 POS	
	Sig.	Exp(B)
Female	0	1.257
White (reference)		
Black	0.001	1.282
East Asian	0	2.767
Latin American	0.019	0.696
Middle Eastern	0	1.801
Mixed	0.949	1.005
South Asian	0	2.914
Southeast Asian	0	2.305
Parents - University Education	0.962	1.002
Family Structure – Two Parents (reference)		
Mother Only	0.001	1.232
Father Only	0.824	0.966
Other Family Structure	0.003	0.643
Grade 9 Academic Program	0.025	1.212
Grade 10 Academic Program	0.037	1.203
Grade 11 University-level Program	0	1.549
Grade 12 University-level Program	0	3.053
Identified Special Education	0.916	1.007
Median Household Income (2019 $)	0.745	1

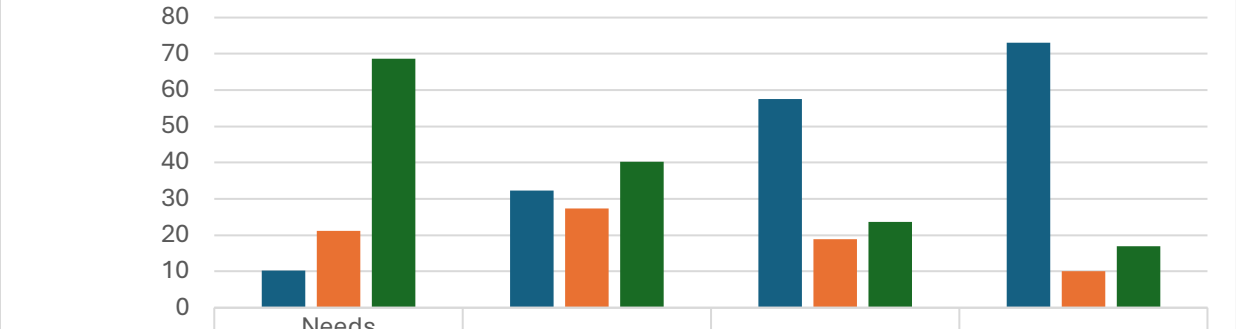
5.4. Learning Skills

Sections 5.1-5.3 examined the structural aspects of elementary programming and their relationship to student outcomes. Bias and the perception of capacity can also impact students' program participation in particular programs and future outcomes. In Ontario, educators are typically responsible for reporting on students' learning skills (Grades 1–12). Learning skills include educators' perception of students' demonstration of responsibility, independent work,

initiative, organization, collaboration, and self-regulation. The Ontario Ministry of Education does not prescribe a specific criteria or method of assessment, but leaves the determination of students' learning skills up to educators' discretion. Brown, et al. (2017) revealed that the perceptions of students' learning skills in Grade 1 are hugely predictive of students' future academic outcomes and access to postsecondary education.

Employing TDSB data, researchers examined students' Grade 1 learning skills and their future access to postsecondary education, including college and university (Brown et al., 2017). Based on students' reported learning skills in Grade 1, over two thirds of students who were reported as "needs improvement" on their learning skills did not go on to postsecondary education following Grade 12. In contrast, 83% of Grade 1 students who received "excellent" on their learning skills went on to access university or college.

Figure 4. Students' Grade 1 learning skills and postsecondary access (Brown et al., 2017)



	Needs Improvement	Satisfactory	Good	Excellent
University	10.2	32.3	57.5	73
College	21.2	27.4	18.9	10.1
No Postsec	68.6	40.3	23.6	16.9

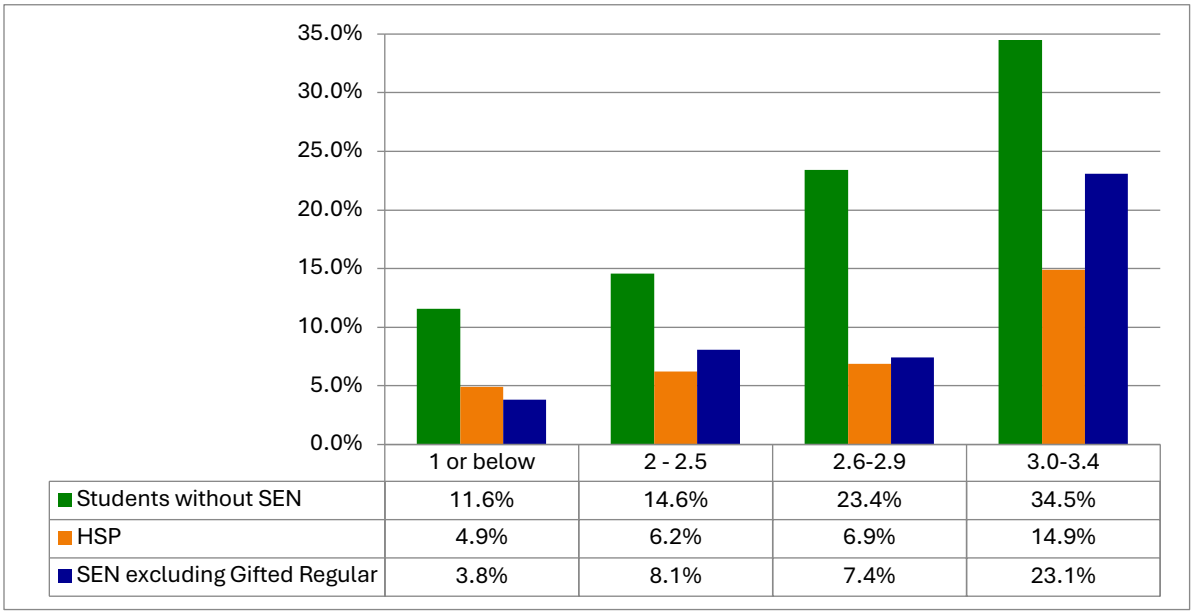
These results query the role that the perception of capacity, even in early elementary school, plays in shaping students' future pathways, where decisions can both enable and/or disable students' access to formative academic opportunities.

Perception of capacity is not neutral but highly vulnerable to bias (Brummelman, 2023; Juhkam et al., 2022). In 2018, a study, drawing on TDSB data, examined educators' reporting of students' learning skills in relation to students' academic achievement (Grade 6 EQAO mathematics assessment) and sociodemographic characteristics (Parekh et al., 2018b). According to *Growing Success* (Ontario Ministry of Education, 2010), learning skills grades (calculated in the study as a mean) and academic marks do not need to correlate to be representative of the student's learning profile in school. However, prior to the study, researchers ran an analysis that determined that, overall, learning skills and academic grades were, in fact, highly correlated. Based on the premise that learning skills and academic grades are closely related, the study queries what might it mean should results reveal discrepancies, particularly across students' sociodemographic characteristics. Results indicated that like-achieving students were receiving

notably different grades on their learning skills across gender, racial, and special education categories.

In relation to disability and special education, students who were not involved in special education, yet who had the same level of achievement as students who were, were more likely to be reported as receiving the grade of "excellent" in their learning skills. Additionally, students taught in special education classes were significantly less likely to receive the grade of "excellent" in their learning skills than their similarly EQAO-achieving peers. With the exception of students scoring level one or below, discrepancies were notably more apparent as students' levels of achievement rose. Results suggested that the factor of being involved in special education, particularly if participating in a self-contained special education class, can influence educators' perceptions of students' capacity in a negative way (Parekh et al., 2018b, 12).

Figure 5. "Excellent" evaluation on learning skills across special education and achievement



	1 or below	2 - 2.5	2.6-2.9	3.0-3.4
Students without SEN	11.6%	14.6%	23.4%	34.5%
HSP	4.9%	6.2%	6.9%	14.9%
SEN excluding Gifted Regular	3.8%	8.1%	7.4%	23.1%

The reported discrepancy observed when comparing special education categories was also observed across students' gender and racial identities (see Parekh et al., 2018, for more detailed information).

6. Equity of Support

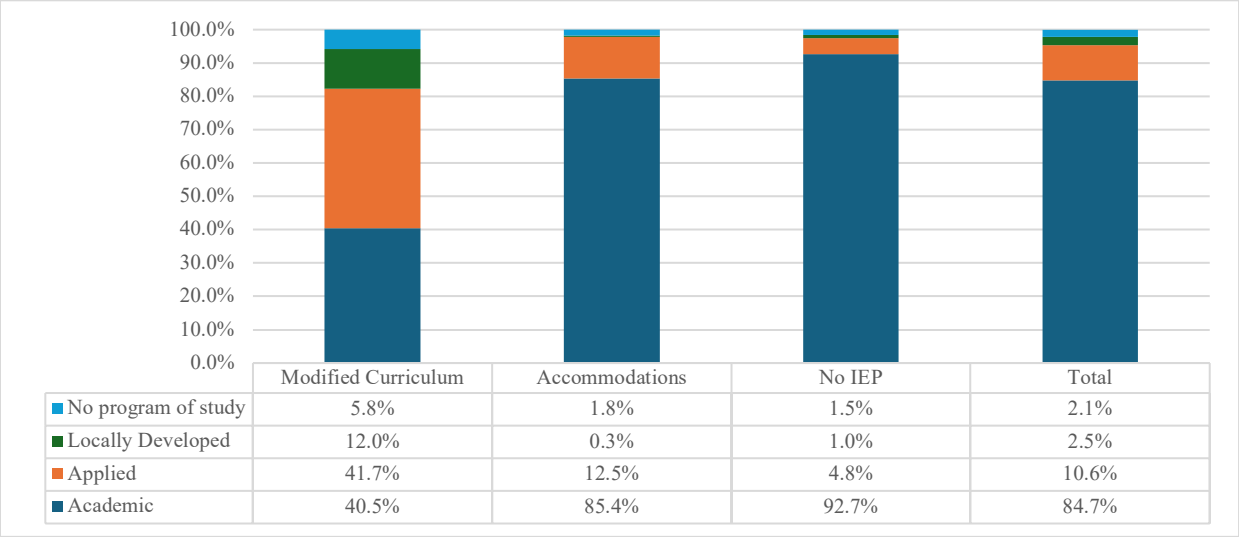
6.1. Accommodations and Modification

Disability is a protected ground under the Ontario Human Rights Commission (OHRC, n.d.-a) and "education providers have a duty to accommodate students with disabilities up to the point of undue hardship" (OHRC, n.d.-b, para. 1). Accommodations are a multi-pronged, shared responsibility based on three guiding principles: respect for dignity, individualized

accommodation, as well as inclusion and full participation (OHRC, n.d.-c). Despite the established duty to accommodate, there can be uncertainty as to how and when accommodations should be integrated into the classroom. In interviews with students, many identified strategies that would have supported their learning and, had they been implemented into the classroom, would have diminished their experiences of embarrassment and stigma (e.g., strategies such as instructions offered in multiple ways – oral and written; flexible timelines for assignments while maintaining high expectations for completion) (Parekh, 2022). At times, there have been questions over what constitutes a required, reportable skill and what can be accommodated while still reaching the intended learning goal. The Right to Read inquiry, launched by the OHRC in 2019, attempted to address the potential conflation between instructional intervention and accommodation. In its final report, the inquiry stated, "Schools must provide accommodations *alongside* evidence-based curriculum and intervention strategies" (OHRC, 2022, p. 315; emphasis in original).

Students involved in special education are typically given an Individual Education Plan (IEP) to support their learning. The IEPs identify options to support students through the integration of accommodations and/or modifications. Accommodations are changes made to how students access learning whereas modifications are changes made to what students are expected to learn. However, there are disparate outcomes related to these interventions. A recent study drawing on TDSB data showed that students who were supported through accommodations (only) tended to experience greater risk of exclusion from the Academic Program of Study compared to students outside of special education, but overall performed on par with the system as a whole (Barron et al., 2024). Comparatively, students who are placed on modifications were over 7.5 times as likely to be excluded from the Academic Program of Study with fewer than half of students accessing the Academic Program of Study at all (Barron et al., 2024).

Figure 6. Curriculum type and Grade 9 program of study (Barron, et al., 2024)



	Modified Curriculum	Accommodations	No IEP	Total
No program of study	5.8%	1.8%	1.5%	2.1%
Locally Developed	12.0%	0.3%	1.0%	2.5%
Applied	41.7%	12.5%	4.8%	10.6%
Academic	40.5%	85.4%	92.7%	84.7%

The differences in intervention-related outcomes hold implications for students' future access to postsecondary education, as evidenced by a significant reduction in postsecondary access for students on a modified curriculum (Brown et al., 2022). In light of the barriers curricular

modifications pose for students, the *Right to Read* report (OHRC, 2022) included the following guidance, "School boards and schools should take great care not to confuse accommodations with modifications. Accommodations help students meet curriculum outcomes; modifications change curriculum outcomes. Schools should modify to lower grade-level expectations only as a last resort – and only after making every effort to provide interventions and successfully accommodate the student's learning needs to attain grade-level expectations" (p. 316).

6.2. "Fallacy of Choice" as It Relates to Access to Services and Support

According to the Ontario Human Rights Commission, the principles guiding accommodations for disabled students include individualization (OHRC, n.d.-c). However, in interviews with families of children involved in the special education system, across several Ontario and Canada-wide projects, many identified a lack of individualization and choice around access to support at school and described the challenging terrain they faced in advocating for resources. Many families shared that, despite advocating, submitting assessment documentation and recommendations, as well as working through education channels to meet with the appropriate school personnel, their children were offered very little in terms of support in the homeroom class. Instead, many families were informed that should they wish for greater support, they would have to enrol their child in a self-contained special education program. Drawing on data from a national study, the Inclusive Early Childhood Service System project (Underwood et al., 2019) identified the lack of authentic choice for families. The IECSS study examines the early years and access to services and schooling for young disabled children and detailed the challenges families faced in their attempt to seek support for their children before and at school entry. Underwood et al. (2019) wrote the following:

> We heard from many families that what are presented as choices, are often tactics used by schools to relocate children to other programs. Many families told us that school principals or other staff reminded them that it is not mandatory to send your child to kindergarten (mandatory education begins at age 6, or Grade 1 in Ontario). Often the choice put in front of parents is to choose the local school with no accommodations or to attend a segregated program that has a therapeutic focus. This is not a true choice. For the most part, we have heard that the only form of support that is offered is an education assistant, and this type of support is allocated at the board level with limited resources. Few other accommodations are offered. One parent visited an autism program in which
>
> > [the principal] said to me, "Listen, I don't care if your kid comes here or not; that makes no difference to me. You have to do what's best for your kid." But all I heard was "I don't care if your kid comes here." (1.024)
>
> Kindergarten is described as a choice because attendance is not mandated by law… One mother was told that her child could stay in a community kindergarten but have a reduced day, or she could go for the full day to a special education school. The first option was not in fact a true choice…Another mother explained to the principal that "we would like her to [be in] community school. It is her right. And she should also be able to get some autism intervention and she should be able to be safe there" (1.022). In this

> case, the principal called her to say that they had found a spot in a segregated program for her child. (p. 146)

As evidenced by discussions with families, access to support can be evasive. When systems congregate resources into silos, as opposed to integrate resources across schools, access to support is significantly reduced. The siloing of resources often requires children to travel outside their community to access support, costing children the benefits of attending school within their community, alongside, potentially, their siblings and neighbourhood peers. Creating silos of support significantly reduces the number of children in a system who can ultimately access what they need to be successful in school. It contributes to the pervasive notion that support is offered "elsewhere," reducing the sense of need or obligation for the homeroom or regular classroom to be responsive to students. However, families shared that they had experienced few opportunities for accommodations and/or individualized learning strategies offered in the regular class. As a result, many families shared that they support the ongoing structure of the self-contained special education class as it ensures that there is *something* available for their child(ren) (Qualitative interviews with Ontario educators, families, and students).

6.3. Siloing Support and Harm to Educators

In interviews with educators, it was also shared that siloing services and support had a negative impact on teachers. While there was a shared sense of responsibility for all students in the school, many educators who taught in self-contained special education classes reported feeling as though they were the entirety of students' support systems. Additionally, educators shared that while they could adjust and amend their practice to support students' learning in their self-contained classes, they often encountered mixed-interest, and even resistance, from homeroom educators in adopting those same practices. Educators also shared that smaller self-contained classes do not always allow for enhanced time for learning (Qualitative interviews with Ontario educators, families, and students).

Many self-contained special education classes had been developed around the idea that the dedicated space and intentional instruction would enable more direct implementation of interventions. However, some educators reported that self-contained spaces often became a placement for any and all students who were struggling in the homeroom, not just for students who required specific curricular interventions. As such, educators and families reported that, with some class configurations, much of the educator's time was spent managing student behaviour, keeping students safe, liaising with support services, and trying to fit in academic learning when possible. Educators also reported experiencing professional stigma associated to their role as a special education educator and described an isolating effect where they had limited access to a professional community within the school. As such, even when interviewing educators who chose to work in special education and had dedicated long careers to working with and supporting disabled children, they questioned whether self-contained classes were the best way to support students (Qualitative interviews with Ontario educators, families, and students).

7. Equity of Experiences

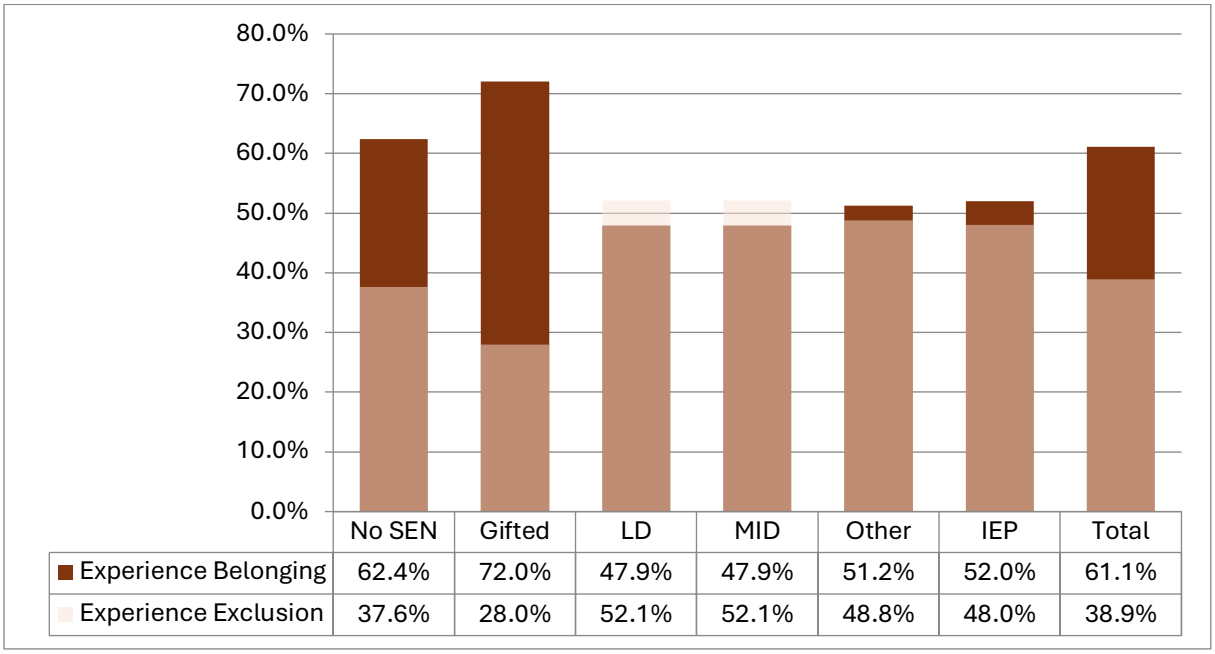
7.1. Student Experiences of Self-contained Special Education and Low Ability Groups

Across several Ontario-based research projects exploring special education and/or students' pathways, students shared how difficult it was to be placed in a 'low' ability group. In a small study, working with ten middle school students, having experienced both a self-contained class and intentionally inclusive classroom environment, all ten said they preferred learning in their homeroom over the special education class (Parekh, 2019). Revealed through a number of studies, there appears to be some level of discomfort speaking to students about disability and/or special education in schools. As such, some students shared that they never knew why they were pulled out for resource support, why they had been selected for withdrawal, or why it was believed they needed it in the first place. Other students shared that placement in a self-contained special education class had deeply and negatively affected their self-confidence. Other students felt the placement signalled to their peers and teachers that there was something wrong with them. Students also shared that the stigma associated with special education impacted their relationships with their peers and led to exclusion in school (Parekh, 2022). None of these reported student experiences were a surprise. When systems are structured to advantage students perceived as more capable, it inherently disadvantages students deemed to be less so…and students feel it (Qualitative interviews with Ontario educators, families, and students).

7.2. Students' Experiences of Belonging

In 2014, drawing on data from the TDSB, research on student belonging revealed that students involved in special education, particularly students participating in self-contained special education classes, reported increased experiences of exclusion (Parekh, 2014). Based on three overarching components, safety and acceptance in school, belonging and value in the classroom, and belonging with peers, students' experience of belonging is correlated to their identification through, and involvement in, special education. For instance, although over 60% of students, overall, reported an experience of belonging, this was true for 72% of students identified as gifted and 48% for students who had been identified with a learning disability or mild intellectual disability.

Figure 7. Experience of belonging across special education categories, 2006–11 Grade 9 cohort (Parekh, 2014, 82)



	No SEN	Gifted	LD	MID	Other	IEP	Total
Experience Belonging	62.4%	72.0%	47.9%	47.9%	51.2%	52.0%	61.1%
Experience Exclusion	37.6%	28.0%	52.1%	52.1%	48.8%	48.0%	38.9%

Table 8. Experience of belonging and exclusion across selected school-wide structures, 2011–12 (Parekh, 2014, 218)

School-Wide Structures	**Experience Belonging**	**Experience Exclusion**
Alternative School	71.8%	28.2%
Arts	72.4%	27.6%
Special Ed	55.6%	44.4%
Limited Academic	54.1%	45.9%
Total across TDSB secondary	58.1%	41.9%

Students can also be organized by ability across the system. As such, the study on belonging also examined whole secondary schools that were organized by a particular intention. Included in the study were alternative schools, specialty arts schools, special education schools, and schools with limited academic courses/program offerings. Even though all students within the identified schools were there based on a particular shared vision or intention, students attending schools denoted by low ability (e.g., special education and limited academic schools) reported a decreased experience of belonging compared to students attending alternative and specialty arts schools (Parekh, 2014).

7.3. Notions of Safety

A recurrent theme across qualitative projects was the question of whether self-contained special education classes provided a safe space for disabled students (Qualitative interviews with Ontario educators, families, and students). Several educators, education leaders, students and families expressed concern with the disability-related discrimination students were encountering in school, including name-calling, put-downs, exclusion, and bullying. There was also mention from students and educators that students sometimes encountered a lack of patience, annoyance, and irritation when seeking accommodations or support in the classroom. These experiences were reported as playing a role in students feeling and exhibiting negative emotions and behaviours (Qualitative interviews with Ontario educators, families, and students).

Based on the pervasive nature of disability discrimination in education, self-contained special education classes were frequently positioned as a safe space for students where students could learn with like-achieving peers, free of judgment. Several educators raised the importance of protecting students from feeling different and from disability-based stigma. However, discussions with families and students did not identify self-contained special education classes as a source of safety for their children or themselves. Some families and students discussed ongoing safety concerns throughout the school environment that were not solved, and may even be exacerbated, by their child's or the student's own participation in a self-contained special education program (Qualitative interviews with Ontario educators, families, and students).

8. Equity of Access

As noted earlier, disability is not experienced in isolation and bias can play a role in how student ability is perceived. It is, therefore, important to adopt a lens of intersectionality when examining academic trajectory and ability-based data. Drawing on data from the TDSB, it is clear that certain identity groups are more likely to be involved in the special education system and placed in self-contained special education classes. The relationship between special education and disproportionality across students' racial, gender, and income status has been established internationally (Artiles et al., 2010; Connor, 2017; De Valenzuela et al., 2006; Ferri & Connor, 2005; Reid & Knight, 2006; Skiba et al., 2006).

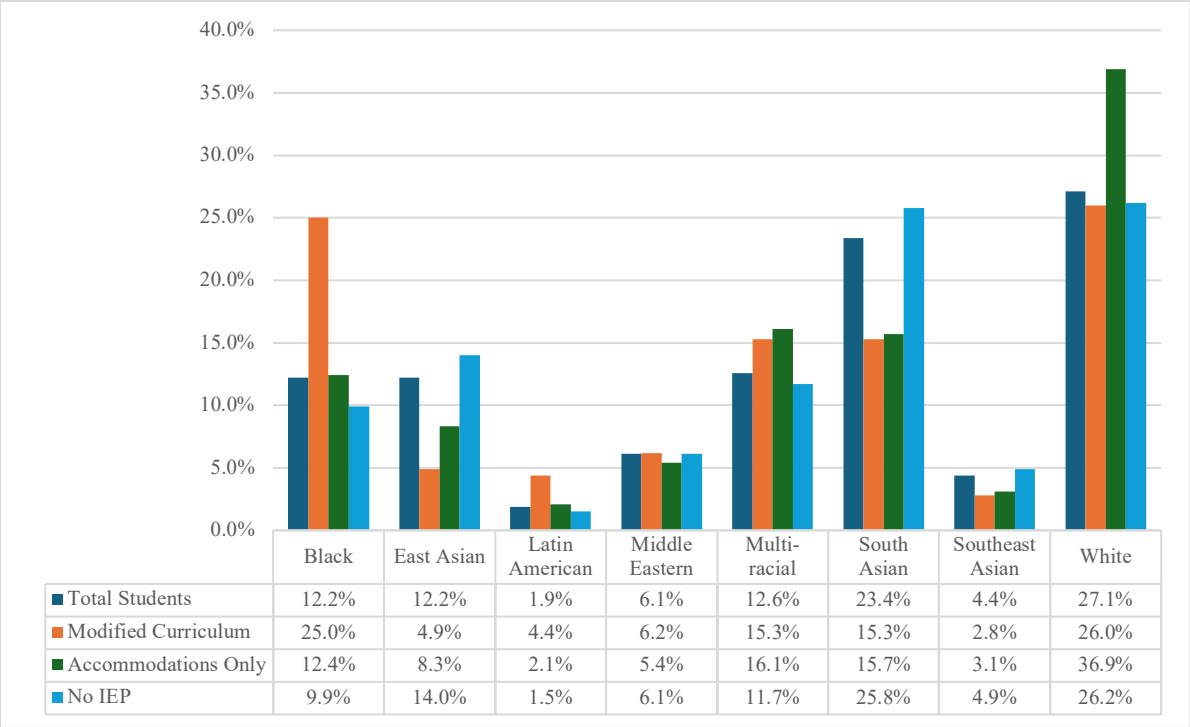
8.1. Students' Demographic Characteristics across Special Education Categories, Placements & Interventions

8.1.1 Accommodations and Modifications

Curricular modifications typically reflect curricular expectations that are a minimum of two years behind and create an academic gap that is rarely closed before students enter high school. As such, many students on a modified curriculum arrive at secondary school without having had access to Grade 7 and 8 curriculum (Barron & Parekh, 2023). Similarly to other approaches to organizing students by ability, there are relationships to students' demographics where white, wealthier students are more likely to be supported by accommodations only, whereas racialized

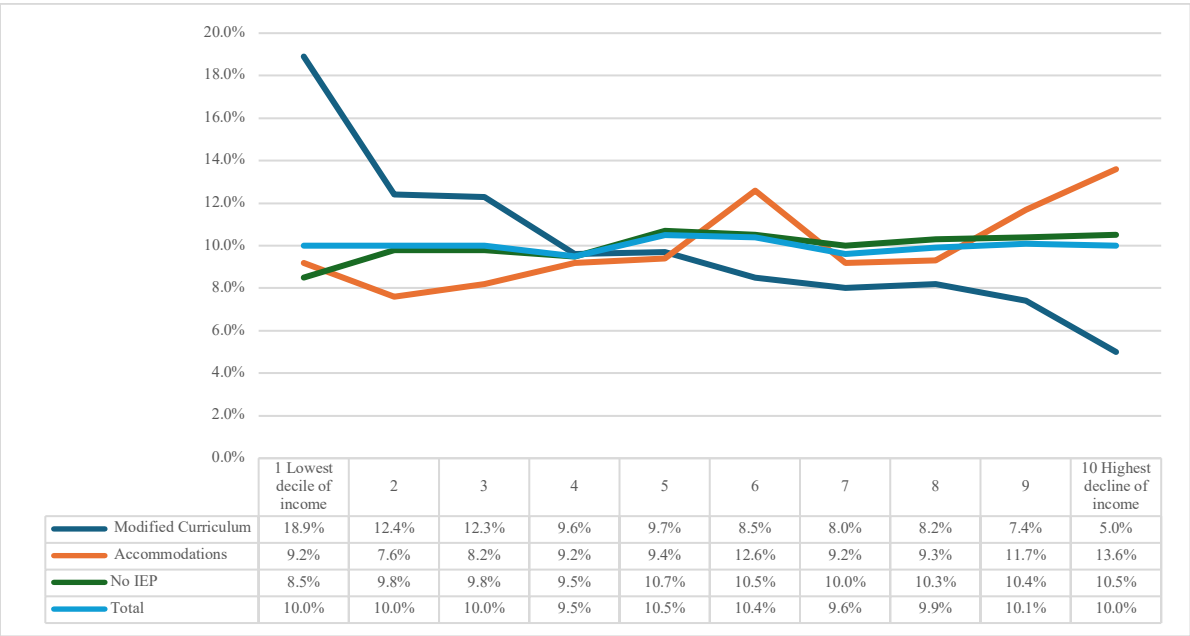
students and students living in lower income neighbourhoods are more likely to receive curricular modifications (Barron, et al., 2024).

Figure 8. IEP strategy and race (Barron, et al., 2024)



	Black	East Asian	Latin American	Middle Eastern	Multi-racial	South Asian	Southeast Asian	White
Total Students	12.2%	12.2%	1.9%	6.1%	12.6%	23.4%	4.4%	27.1%
Modified Curriculum	25.0%	4.9%	4.4%	6.2%	15.3%	15.3%	2.8%	26.0%
Accommodations Only	12.4%	8.3%	2.1%	5.4%	16.1%	15.7%	3.1%	36.9%
No IEP	9.9%	14.0%	1.5%	6.1%	11.7%	25.8%	4.9%	26.2%

Figure 9. IEP strategy and neighbourhood income (Barron, et al., 2024)



	1 Lowest decile of income	2	3	4	5	6	7	8	9	10 Highest decline of income
Modified Curriculum	18.9%	12.4%	12.3%	9.6%	9.7%	8.5%	8.0%	8.2%	7.4%	5.0%
Accommodations	9.2%	7.6%	8.2%	9.2%	9.4%	12.6%	9.2%	9.3%	11.7%	13.6%
No IEP	8.5%	9.8%	9.8%	9.5%	10.7%	10.5%	10.0%	10.3%	10.4%	10.5%
Total	10.0%	10.0%	10.0%	9.5%	10.5%	10.4%	9.6%	9.9%	10.1%	10.0%

8.1.2 Gender across Special Education Identifications

Drawing on two cycles of TDSB data collection (2006–07 & 2016–17), the relationship between special education identification and gender was examined. Although gender identity was explored a decade apart, trends are fairly consistent. Male students were overrepresented in all special education categories, including gifted. The consistent overrepresentation supports additional research demonstrating how male students have increased participation in self-contained special education placements as well (Brown & Parekh, 2010, 2013; Brown et al., 2021).

Table 9. Gender* and special education categories (2006–07 & 2016–17) (Brown et al, 2021, 12)

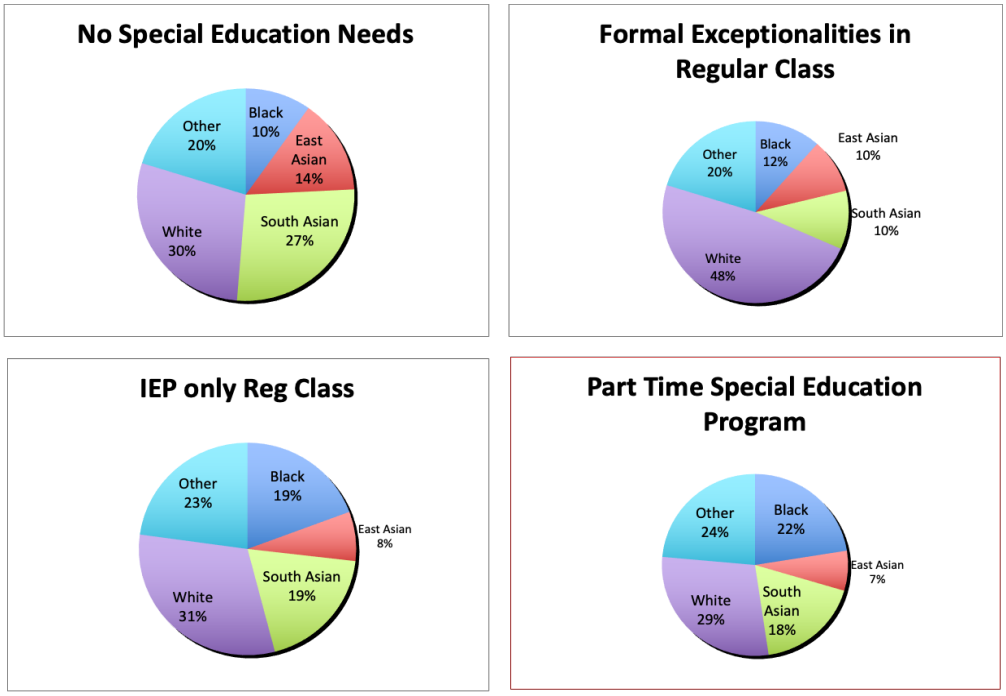
	Gifted Exceptionalities		**No Special Education Identification**		**Exceptionality Excluding Gifted**		**IEP only**		**Totals**	
	06-07	16–17	06–07	16–17	06–07	16–17	06–07	16–17	06–07	16–17
Female	37.6%	40.5%	50.7%	52.8%	32.1%	32.6%	41.7%	40.8%	48%	48.9%
Male	62.4%	59.5%	49.3%	47.2%	67.9%	67.4%	58.3%	59.2%	52%	51.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * Information on gender in this table came from the TDSB School Information Systems (SIS) that did not include other gender identities when the Student Censuses were administered.

8.1.3 Students' Racial Identity across Special Education Placements

In a recent study examining the impact of special education placements, notable racial disparity emerged (Parekh & Brown, 2019). Across the four placement categories (students outside of special education, students integrated with only an IEP, students integrated with a formal exceptionality, and students placed in a part-time self-contained special education class), there was evidence of racial disproportionality. Perhaps the most notable differences existed between students who had been formally identified and taught in the regular class in contrast to students who participated in a part-time special education class. Identified students participating in the regular class were disproportionately white, whereas students taught in the self-contained special education class were disproportionately Black or fell into the "other" racial category (Parekh & Brown, 2019).

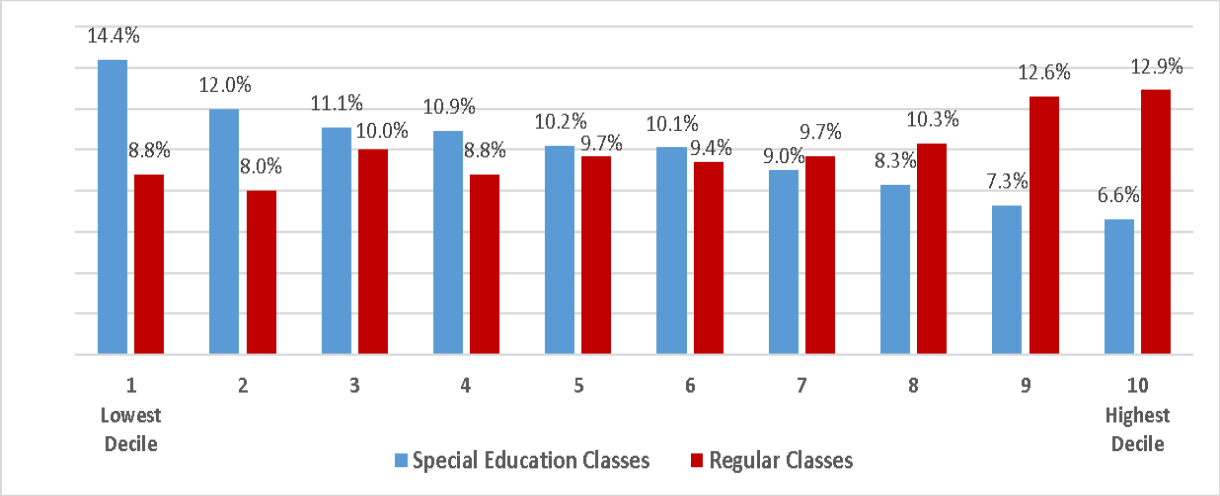
Figure 10. Students' racial identity across special education placements (Parekh & Brown, 2019, 127)



Income is also highly correlated to integration. Students in lower income deciles are much more likely to be taught in self-contained special education classes, whereas students in higher income deciles are overrepresented in the regular class.

8.1.4 Relationship between Income and Special Education Placement

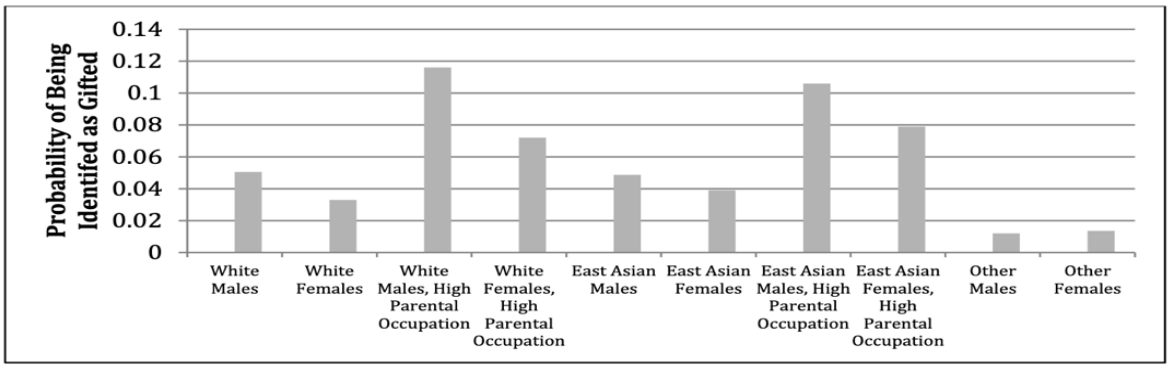
Figure 11. Proportion of students integrated or in self-contained programs by income (Brown & Parekh, 2010, 40)



8.2 Access to Enrichment and Gifted Education

The identification of giftedness and access to enriched and/or gifted education is often attributed to students' demonstrated achievement and perceived academic potential. However, research exploring the identification of giftedness found that students identified as gifted in elementary school had almost no relationship to the very highest achievers by the end of high school. In addition, the combination of being white, male with high parental occupation was the most predictive for gifted identification, while highest achievers were more likely to be female students as well as South, Southeast and East Asian students (Parekh et al., 2018a).

Figure 12. Combinations of students' characteristics and predicted probability of being identified as gifted (Parekh, et al., 2018a, 20)



***This figure is a bar chart that demonstrates the predicted probability of being identified as gifted across a combination of racial, gender, and parental occupation characteristics. White, male students with high parental occupations have the greatest chance at being identified as gifted, followed by East Asian male students with high parental occupations.**

The Parekh et al. (2018a) study concluded, "Based on constructs of giftedness, results demonstrate that not only is there almost no relationship between the early identification of academic potential and very high achievement in secondary school, but there are also highly concerning correlations between who is perceived to embody potential" (p. 26). As with other evidence reviewed throughout this report, these results further urge educators to consider how ability and academic potential are constructed and who those constructions advantage or disadvantage.

9. Summary Discussion

Despite the ongoing debate around the implications of a self-contained special education model, the empirical evidence supporting an inclusive model of education has been building for decades, particularly in relation to students' academic achievement (Barron et al, in press; Francis et al., 2017; Hehir et al., 2016; Mitchell, 2010, 2015). The notion that organizing students by ability is in the best interest of students relies on the flawed premise that students' capacity can be objectively and accurately identified (see Gould, 1996; Sloan, 2013) and effectively organized. It

also assumes that educators, families, and students have a neutral response to students' placement in a systemic hierarchy of ability (Parekh, 2022). As detailed in this report, conceptualizations of and reporting on student ability are highly subjective and can be shaped by bias (Brummelman, 2023; Juhkam et al., 2022; Parekh et al., 2018), including system decisions on who should be placed in self-contained special education and who can participate in the regular class. Additionally, there are tremendous consequences, both academic and social, to students' placement in self-contained special education programs, particularly around enabling or disabling students' access to secondary and postsecondary academic opportunities (Parekh & Brown, 2019) as well as shifting and shaping students' own sense of self (Francis, et al., 2020; Parekh, 2022). From working with families and educators, there is significant apprehension around whether what students need can be successfully integrated into a regular class structure. However, there are documented models of support that have not only served students involved in special education but have also extended support to students who would not have had access (Parekh, 2019; Mitchell, 2010, 2015).

Organizing students by ability, across all grades, has implications for students' futures, particularly in relation to students' access to postsecondary education (Barron et al., 2024; Brown et al., 2022; Gallagher-Mackay et al., 2023). As noted, the changing context of labour in Canada, and internationally, has shifted the requirements for a "good job" (Government of Canada, 2017; Strohl et al., 2024) to include some postsecondary experience. As such, access to postsecondary education is quickly becoming a prerequisite for future employment, economic security, and long-term health (Ballingall, 2015; Fonseca et al., 2011; Irwin, 2015). It is, therefore, critical that education systems aim to graduate as many students as possible who are eligible to pursue postsecondary education should they choose.

As discussed earlier in the report, ableism is the privileging of ability that leads to the marginalization and disadvantage of disabled people. While educators and education leaders strive to challenge all forms of discrimination, research continues to highlight how education, as a system, can be shaped by ableist principles, advantaging and disadvantaging students based on their perceived capacity. Due to the interrelated nature of ableism, racism, classism and other forms of discrimination, Ontario-based research has shown that historically marginalized students are overrepresented in programs characterized by low-ability and heightened needs, including self-contained special education programs (Brown & Parekh, 2010); modifications (Brown et al., 2022); non-Academic streaming (Parekh, 2013); and pathways that limit access to postsecondary education (Parekh & Brown, 2019). Conversely, the degree to which students are welcomed in the regular class and offered access to elite programming is evidenced to be tied to wealth, whiteness, and parents' own history of navigating the education system (Gaztambide-Fernández & Parekh, 2017; Parekh & Brown, 2019; Parekh et al., 2018a). These findings have been evidenced internationally as well (Artiles et al., 2010; Connor, 2017; De Valenzuela et al., 2006; Domina et al., 2016; Ferri & Connor, 2005; Francis et al., 2017; Reid & Knight, 2006; Skiba et al., 2006).

How systems respond to students' ability and/or disability can be a mechanism for enacting racism, classism, sexism, and other pervasive biases. Following the principles of disability justice (Berne, 2015; Sins Invalid, n.d.), it is critical for educators and education leaders to adopt an intersectional lens and demonstrate solidarity in challenging all forms of discrimination.

Recognizing that the system underpinning education is structured to rank and organize students by ability, intentionally striving to challenge ableism, its consequences and all intersecting forms of discrimination can be difficult. However, moving to a more inclusive model can be well worth it.

10. Practice and System Change Strategies towards Inclusion

10.1 Evidence-Based Strategies that Support Inclusion

There is considerable research into "what works" to support an inclusive approach to education (Mitchell, 2020). Typically, effective strategies towards inclusion are implemented to support all students with disabilities. The importance of cooperation, commitment, and differentiation were noted as key to inclusion as was recognizing the important role of social interaction in student learning (Rix, et al., 2009). Complementing Rix et al,'s (2009) review, the European Agency for Development in Special Needs Education (2001, 2004) released two evidence-based literature reviews focused on inclusive education strategies for both elementary and secondary schools. To synthesize their results, two key strategies were evident across both reviews/panels:

- Co-teaching in which a special education teacher supports the general education teacher and class through shared teaching, planning and practice.
- Peer tutoring in mixed ability groups.

The reviews also identified effective strategies such as collaborative planning, extending class periods, and supporting students through problem solving. A number of these strategies were also supported through an Ontario-based study where many educators had transitioned from a special education to a co-teaching model (Parekh, 2019). Although educators shared some apprehension regarding the shift in program delivery, overall, educators were impressed by the effectiveness of the co-teaching model and the extended reach to students who, although not involved in special education, could benefit from additional support. Key themes to emerge from this study also included the importance of supportive administration, effective timetabling to ensure time for co-planning, and enabling students to work in heterogenous or mixed-ability groups in class (Parekh, 2019). Each of these strategies has shown to be helpful in supporting inclusive learning, limiting students' experience of social exclusion, and enhancing students' and educators' capacity to be effective in the classroom.

Recently, a research team from the UK published a book "Reassessing 'Ability' Grouping: Improving Practice for Equity and Attainment" (Francis, et al., 2020). Together, they have developed a helpful guide on the 'Dos and Don't of Attainment Grouping'. For a breakdown of their recommendations, please see: https://www.ucl.ac.uk/ioe/sites/ioe/files/dos_and_donts_of_attainment_grouping_-_ucl_institute_of_education.pdf.

10.2 Experience Working with Systems in Transition

Across the literature, there have been key elements present in many special education systems, globally, that have raised concern. For instance, identification processes (Office of the Auditor General, 2008; Farrell, 2010; Mitchell, 2010, 2015; President's Commission on Excellence in Special Education, 2002; Sailor & Burrello, 2013), practices related to placement in self-contained special education classes (Barron et al., in press; Shaddock et al., 2009), academic streaming and ability grouping (Archer et al., 2018; Domina et al., 2016) and curriculum modifications (Barron et al., 2024; Brown et al., 2022) have all been identified as barriers to students' academic success. As such, moving forward with system change, these could be potential areas of focus. System change requires time and investment. Porter (2010) suggests that, to thoughtfully plan and implement, systems should expect that it could take 3-5 years to move towards greater inclusion. As noted, investment is key and includes training for educators, accruing resources, learning about and sharing best practices, building models of success, and establishing leadership networks across the system (Porter, 2010).

Drawing on my own experience as an educator and disability studies scholar, I can offer a few observations that appear promising to support system change towards a more inclusive approach to schooling.

1. In my experience, schools that have committed to investing in community buy-in have had better success in moving towards inclusion. For instance, school leaders who have intentionally shared their vision and justification for inclusion with families, educators, students, and community through community meetings, professional development, and mentorship opportunities in the classroom have had a smoother transition. Buy-in from families and community is critically important.
2. As noted earlier, schools where leadership has structured support for inclusion have fared better (e.g., timetabling to support co-teaching and co-planning activities, bring in resources to support teaching).
3. As part of the justification for moving towards a more inclusive model of education, it is important for schools to commit to anti-discrimination and anti-oppressive approaches to education that include strategies to address ableism and disability-related discrimination. As part of this commitment, schools would benefit from developing and implementing a robust anti-ableism strategy. As discussed, disability discrimination is far too often tolerated or seen as inevitable in education.
4. School climate is another critical factor and it is important to establish a culture of high expectations for all students where the goal is for students to graduate with as many options to access postsecondary education as possible.
5. Drawing on several qualitative research projects, it was found that implications related to education-based decisions were not clearly communicated to families. As such, it is of the utmost importance that schools commit to transparency and information-sharing with families, particularly around the implication of pathways and program decisions. For instance, when a student has their curricular expectations modified, or when they are recommended placement in a self-contained special education class, rarely are families alerted to potential future barriers.

6. It is important that systems structure accessible opportunities for students in special education to transition into pathways that enable access to postsecondary education.
7. Critical reflective practice coupled with direct intentional action can help challenge longstanding equity issues within education (see Parekh et al., 2022).

Having worked with schools and school boards at various points of transition towards greater inclusion, I can confidentially share that despite the barriers many have encountered, their enhanced capacity to recognize subtle and explicit forms of exclusion and their commitment to change have made school a better experience for many students.

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Appendix

Table A1. Disability categories and likelihood of NOT applying to postsecondary education (Brown, et al., 2024, slide 10).

Disability Categories only (No self- OR institutional ID as reference)	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
			3351.025	5	0		Lower	Upper
Self and Institutional ID	1.897	0.044	1876.523	1	0	6.663	6.115	7.26
Self and NO institutional ID	0.629	0.062	103	1	0	1.876	1.661	2.118
Self (Unsure) and Institutional ID	1.792	0.061	875.346	1	0	6	5.328	6.756
Self (Unsure) and NO institutional ID	0.391	0.05	60.406	1	0	1.478	1.339	1.631
NO Self and Institutional ID	1.498	0.036	1706.858	1	0	4.473	4.166	4.802

Table A2. Elementary school factors and likelihood of NOT applying to postsecondary education (Brown, et al., 2023, slide 8).

	B	S.E.	Wald	df	Sig.	Exp(B)
Suspensions in Grades 2 4 or 7	1.341	.116	133.505	1	.000	3.822
High Absenteeism in Grades 2 4 or 7	.870	.064	187.220	1	.000	2.387
Congregated SEN in Grades 2 4 or 7	1.450	.073	392.969	1	.000	4.261
Low ERC Reading in Grades 2 4 or 7	.117	.104	1.267	1	.260	1.124
Low ERC Writing in Grades 2 4 or 7	.614	.097	40.324	1	.000	1.848
Low ERC MATH in Grades 2 4 or 7	.451	.088	26.127	1	.000	1.570
Constant	-2.596	.044	3501.328	1	.000	.075