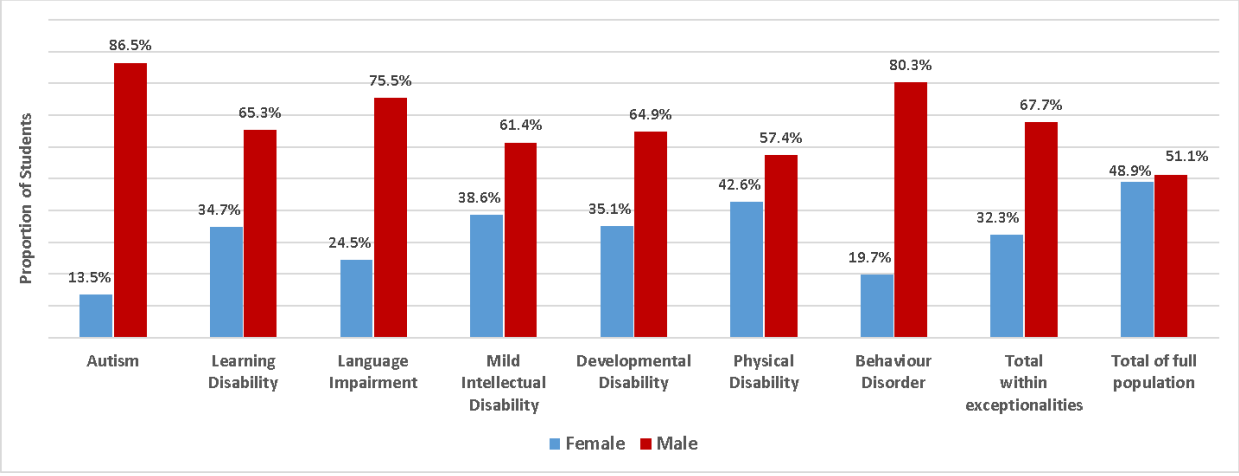
What Does the Data Tell Us?

The collection and analysis of students' socio-demographic data is an important tool that can be used to identify areas of inequity. In special education, the issue of disproportionality is significant and often underscores community concerns around the overrepresentation of racialized students, students experiencing low income, and male students within special education categories and programs. The TDSB is the Ontario school board with the longest running identity-based data collection strategy and the most detailed dataset/analysis available on special education, thus this guide has included data from the TDSB. Boards across Ontario are increasingly collecting and analyzing identity-based data. In future, data correlating students' socio-demographic identities with programming and outcomes will be more readily available around the province. However, data trends from the TDSB, relating to gender, race, class, and ability-based disproportionality, have been evidenced internationally, particularly in US and UK (Archer et al., 2018; De Valenzuela, et al, 2006; Oakes, 2005; Skiba et al., 2006). It is important to note that bias exists in boards that have both hetero and homogenous student populations, whether they are located in urban or rural contexts. Bias and discrimination have been entrenched and perpetuated through history and exist in all facets of society and institutions – no system is immune. Therefore, should the overall demographic patterns differ from board to board, the trends may be similar.

Figure 1: Gender identity across special education categories (excluding gifted)



Data source: Brown et al. (2021) extracted from the TDSB School Information Systems (SIS), 2016–17.
Note. This data was drawn from SIS and was not inclusive of multiple gender identities.

As Figure 1 shows, students identified as male are far more likely to be identified across all special education categories than their female peers, particularly in the categories of autism and behaviour exceptionalities. There are also strong relationships between special education identifications and students' racial identity. In particular, Black, Indigenous, and Latinx children tend to be overrepresented in special education categories and special education programs (excluding gifted) (Brown & Parekh, 2010; Mattson & Caffrey, 2001). Indigenous children are diagnosed with disability at a rate of approximately two times that of non-Indigenous children (Durst, 2006) and are, proportionately, two to four times as likely to be identified through special education. There is a growing body of research to suggest that Indigenous children are often streamed into special education programs and intervention systems due to perceived differences in learning and communication styles (Ball & Lewis, 2011).

Table 1: Students' racial identity across special education categories

	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
Black	2.8%	1.9%	11.7%	10.6%	22.2%	20.0%	28.2%	21.7%	13.5%	12.2%
East Asian	27.1%	23.7%	19.2%	14.2%	6.6%	6.5%	8.9%	6.1%	17.7%	13.1%
Indigenous	-	-	0.2%	0.1%	0.8%	1.2%	0.5%	0.7%	0.3%	0.3%
Latin American	0.3%	0.5%	1.9%	1.7%	2.6%	2.8%	2.9%	2.6%	2.0%	1.8%
Middle Eastern	0.7%	1.5%	4.9%	6.6%	4.0%	4.8%	5.5%	6.1%	4.8%	6.1%
Mixed	6.3%	13.1%	5.5%	10.9%	7.4%	14.8%	5.6%	14.3%	5.7%	11.7%
South Asian	9.3%	11.4%	21.8%	24.7%	10.8%	11.6%	15.8%	16.7%	20.2%	22.1%
Southeast Asian	1.9%	2.1%	4.2%	5.6%	2.8%	3.7%	2.9%	2.7%	3.9%	4.9%
White	51.7%	45.7%	30.6%	25.6%	42.8%	34.5%	29.7%	29.1%	32.0%	27.7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%

Data source: Brown et al. (2021) extracted from the TDSB School Information Systems (SIS) and Student Census, 2006–07 and 2016–17.

Tables 1 and 2 examine the relationship between self-identified race and special education categories (both overall and specific exceptionality categories). Compared to overall proportional representations of each racial group, both Tables 1 and 2 demonstrate the disproportionate representation of students across special education categories. Black and Indigenous students are the most likely to be overrepresented within special education categories (excluding gifted) followed by Latinx and Mixed students. Black, Indigenous, and Latinx students (combined) made up 14.3% of the total student population in 2016–17, but only 2.4% of students identified as gifted. On the other hand, white and East Asian students (combined) made up 40.8% of the student population in 2016–17, but represent close to 70% of students identified as gifted.

Data on specific categories reveals that Black students were notably overrepresented in categories such as behaviour and mild intellectual disability; South Asian students were overrepresented in developmental disability and language impairment categories; Mixed students were overrepresented in behaviour and learning disability categories; and white students were overrepresented in autism and learning disability categories. There is a history of low self-identification rates of Indigenous students within the TDSB due to risk of discrimination (Yau et al., 2011). As such, special education categorical figures could not be reported in Table 2.

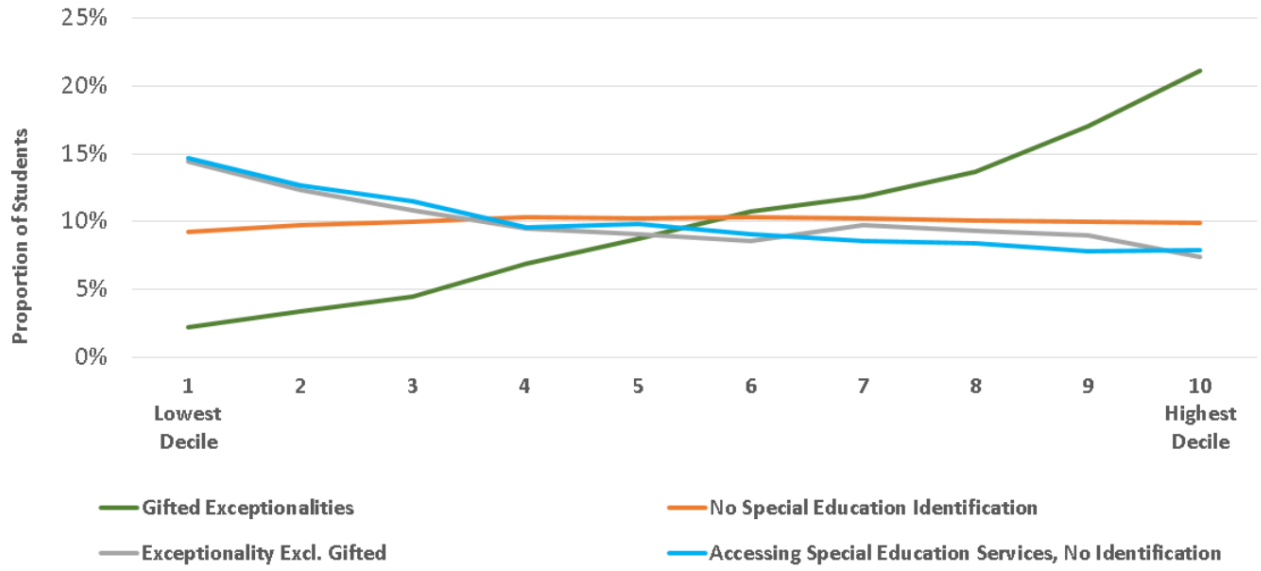
Table 2: Students' racial identity across exceptionality categories

	Autism	Learning Disability	Language Impairment	Mild Intellectual Disability	Developmental Disability	Physical Disability	Behaviour	Total within Exceptionalities	Total of Full Population
Black	14.1%	17.8%	19.4%	32.3%	21.9%	16.2%	44.1%	20.1%	12.2%
East Asian	8.9%	6.8%	11.1%	3.5%	4.7%	13.5%	1.5%	6.5%	13.1%
Latin American	1.4%	3.3%	2.8%	1.6%	4.7%	—	2.2%	2.8%	1.8%
Middle Eastern	2.3%	4.4%	8.3%	8.4%	6.3%	5.4%	1.5%	4.7%	6.1%
Mixed	14.1%	16.2%	5.6%	9.1%	1.6%	2.7%	23.5%	14.9%	11.7%
South Asian	12.5%	8.7%	30.6%	22.4%	37.5%	24.3%	0.7%	11.3%	22.1%
Southeast Asian	6.2%	3.5%	8.3%	3.3%	4.7%	8.1%	—	3.7%	4.9%
White	40.3%	38.2%	11.1%	17.7%	17.2%	29.7%	22.8%	34.7%	27.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Data source: Brown et al., (2021) extracted from the TDSB School Information Systems (SIS) and Student Census, 2016–17. *Note*. Figures could not be reported for Indigenous students in this particular table as numbers of self-identified Indigenous students were too low.

Additionally, there are also significant relationships between income and special education categories. Students marginalized by poverty are more likely to be identified through special education categories (excluding giftedness). For instance, special education categories are highly classed with wealthier students overrepresented in categories such as giftedness, learning disability, and autism. Less wealthy students are overrepresented in categories such as behaviour and mild intellectual disability.

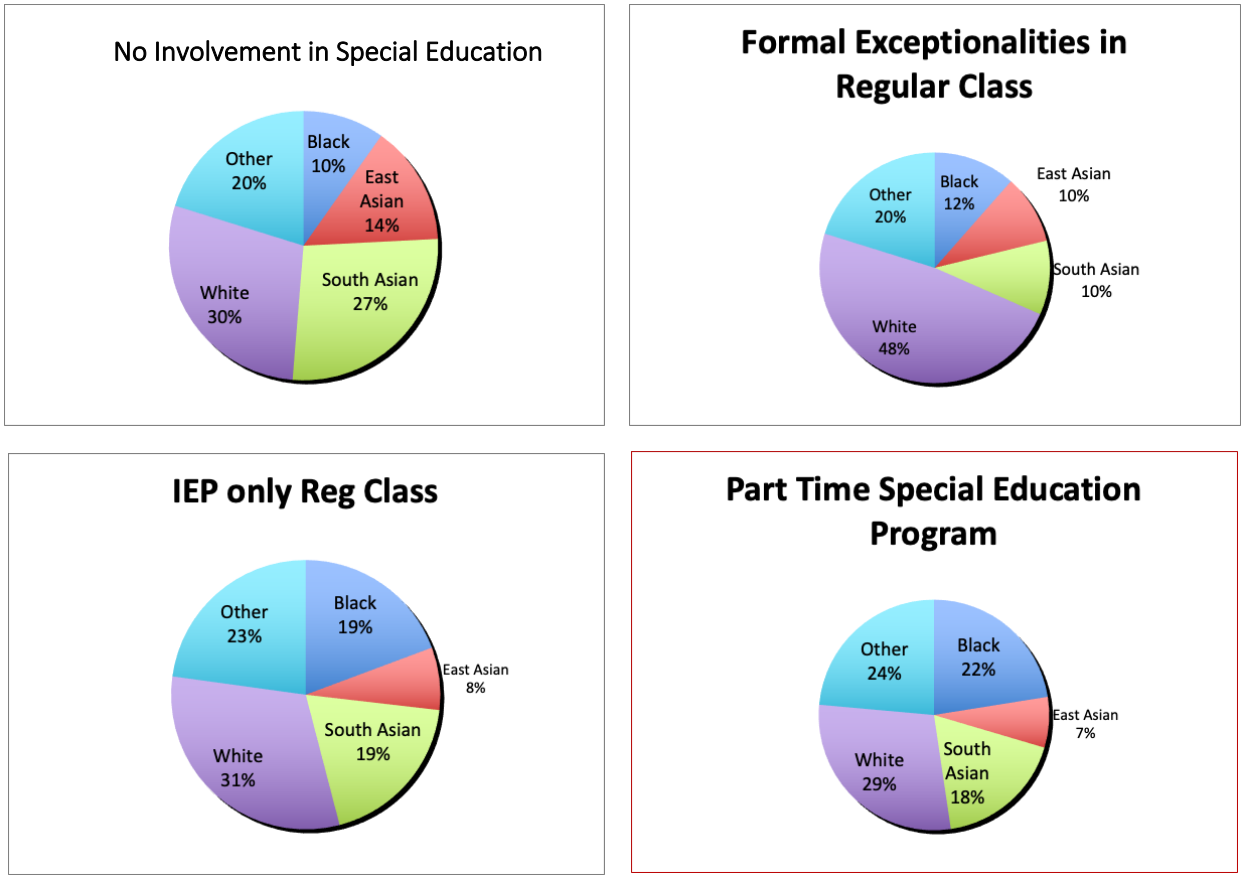
Figure 2: Students' income across special education categories



Data source: Brown et al. (2021) extracted from the TDSB School Information Systems (SIS) 2016–17.

Identifications aside, troubling trends also exist in how the perception of disability correlates to students' socio-demographic characteristics. For example, Black and racialized students, male students, and students experiencing poverty are more likely to be placed in self-contained special education classes where white, wealthy, and female students are more likely to be included in the general classroom. Consider Figure 3 that shows the differences across special education configurations and students' self-identified racial identity.

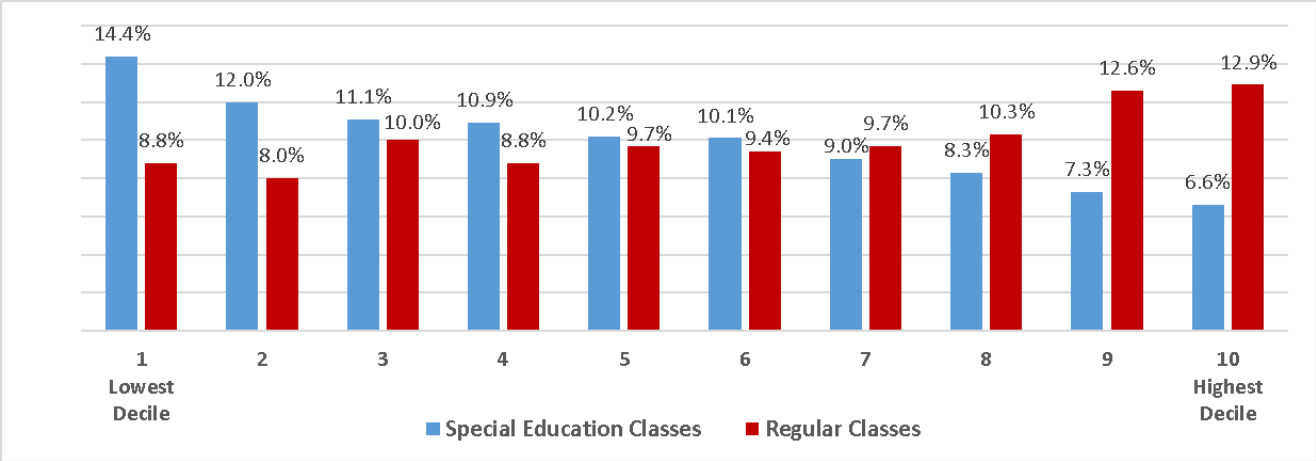
Figure 3: Students' racial identity across special education placements



Data source: Parekh et al. (2019).

Examining the four largest racial categories within the TDSB, the data shows the disproportionality of Black students placed in special education programs. Whereas white students, identified through special education, were more likely to be included in the general class. In terms of economic class, inclusion has a linear relationship to income, with wealthy students more likely to be included and less wealthy students placed in self-contained special education classes (see Figure 4).

Figure 4: Proportion of students integrated or in self-contained programs by income



Data source: Brown and Parekh (2010).

Future Implications

Increasingly, there is international recognition that special education structures and ability-grouping play a predominant role in the greater context of K–12 academic streaming (Archer et al., 2018; Brantlinger, 2006; Ferri & Connor, 2005). Recent data from within Ontario also shows that students in special education are overrepresented in secondary Applied and Locally Developed/Essentials courses (James & Turner, 2017), leading to lower rates of access to post-secondary education compared to students who take Academic courses (Brown, Tam, et al., 2017). Although ability and achievement are often said to be the primary drivers of secondary decisions around course selection, the disproportionalities indicate that bias likely also plays a role. For instance, when holding Grade 6 EQAO achievement constant, students in self-contained special education classes were far less likely to be placed in Academic courses in Grade 9 compared to students with similar achievement in mainstream classes (Parekh & Brown, 2019). Indeed, longitudinal studies have shown that being placed in a self-contained special education class by Grade 5 is a key indicator of not applying to post-secondary education (Brown, Yau, et al., 2017). Applying to post-secondary may not be the ultimate goal for every student, but the moral imperative of public education should be to ensure that every student can graduate with the choice to pursue a post-secondary education, should they so desire.