

### Programs of Study: Pathways through Secondary School

Research on important relationships between school-level structures and students' experiences provides key insights into potential policy directions and program action. All three fact sheets explore school structures at the secondary school level (Grades 9-12) as well as mechanisms of promotion and transference from Grade 8 to Grade 9. In this issue, the focus is on the **Grades 9-10 Program of Study (POS)**.

#### Program of Study—What is it?

The Toronto District School Board (TDSB) offers secondary school students the opportunity to enroll in classes within various Programs of Study. Generally, POS refers to courses taken across three levels of study in Grades 9 and 10. Across the secondary school panel, the TDSB offers seven possible course levels in which students can participate. For Grades 9-10, students can enroll in courses within Academic, Applied, and Locally Developed/Essentials Programs of Study - Academic level courses being the most academically rigorous. Similarly, for Grades 11-12, students can enroll in courses at the University, Mixed, College, and Workplace Preparedness levels - University Preparedness courses being the most academically challenging (Brown, 2008\*). Students are classified into **Program of Study** according to the majority of courses taken. For example, if the majority of the student's courses are in the Academic Program of Study, the student is classified as an "Academic" student. "Undefined" POS are students for which no clear Grade 9-10 Program of Study could be identified, including Special Education Needs, taking non-credit courses, and students entering the TDSB in Grade 11 or 12.

\* Brown, R. S. (2008). *The grade 9 cohort of fall 2002: A five-year cohort study, 2002-2007* (Research Report No. 08/09-8). Toronto, Ontario, Canada: Toronto District School Board

#### Program of Study Pathways—What is it?

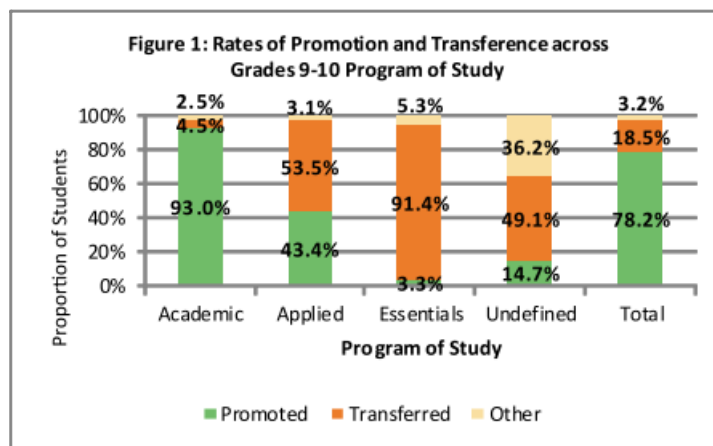
Often complicated by the presence of privilege or social challenge, students' pathways through secondary school are critically important in determining graduation and post-secondary outcomes. The following analyses looks at pathway trends of students from the Grades 9-10 POS, to the majority of courses taken in Grades 11-12, to graduation, and post-secondary access. Unless specified otherwise, the following analyses include all students across the TDSB in Grades 9-12, for the 2011-12 school year.

Table 1: Proportion of Students across Grades 9-10 Program of Study, 2011-12

Program of Study	Academic	Applied	Essentials	Undefined
Proportion of Students	65.7%	25.4%	4.1%	4.8%

#### THE TREND:

- For Grade 9 students in the Academic POS (2011-12) who had also been in the TDSB for Grade 8, 93% had been promoted to Grade 9 and 4.5% had been transferred. The proportion of students promoted from Grade 8 to Grade 9 dropped for both the Applied (43.4%) and Essentials (3.3%) Programs of Study (see Figure 1).
- Conversely, the proportion of students who were transferred from Grade 8 to Grade 9 rose to 53.5% for students in the Applied and 91.4% for students in the Essentials Programs of Study (see Figure 1).



# Programs of Study: Pathways through Secondary School

## What is it?

- Tables 1 to 3 establish **Secondary School Students' Pathways** from their **Grades 9-10 Program of Study**, to the level in which they take the majority of their **Courses in Grades 11-12**, to **Graduating on Time**.

**Table 1: Proportion of Grade 12 Students' Grade 11-12 Level of Courses across Grades 9-10 Program of Study, Year 4 Students Only**

POS in Grade 9-10 to POS in Grade 12	University	Mixed	College	Workplace	Undefined
Academic	77.8%	17.2%	4.5%	0.2%	0.3%
Applied	12.5%	23%	52.5%	7.1%	4.9%
Essentials	2.9%	6.7%	16.5%	59.6%	14.3%
Undefined	50.8%	14.3%	11.7%	3.9%	19.3%
All Grade 12 Students	58.5%	18.1%	16.6%	3.9%	2.9%

**THE TREND:** 77.8% of students who were in the Academic POS in Grades 9-10 went on to take the majority of their courses at the University level in Grades 11-12.

- Over half of the students in the Applied POS went on to take the majority of their Grade 11-12 courses at the College level.
- 59.6% of students in the Essentials POS went on to take the majority of their Grade 11-12 courses at the Workplace level.
- Although not complete, significant trajectories across Grades 9-10 POS and majority of courses taken in Grades 11-12 were established (see Table 1).

**Table 2: Grades 9-10 Program of Study across Majority of Courses taken in Grade 12, Year 4 Students Only**

POS in Grade 9-10 to POS in Grade 12	University	Mixed	College	Workplace	No Program of Study
Academic	90.2%	64.5%	18.2%	2.8%	7.3%
Applied	5.1%	30%	74.9%	43.4%	41%
Essentials	0.2%	1.2%	3.1%	48.4%	15.7%
Undefined	4.6%	4.2%	3.8%	5.4%	36%
Total	100%	100%	100%	100%	100%

**THE TREND:** Of the students who took the majority of their Grade 11-12 courses at the University level, 90.2% had been in the Academic POS for Grades 9-10.

- Almost three quarters (74.9%) of students who took College level courses had been in the Applied POS for Grades 9-10.
- Of students taking Workplace level courses, similar proportions of students had been in either the Applied (43.4%) or Essentials (48.4%) Programs of Study (see Table 2).

**Table 3: Proportion of Students Graduating on Time across Programs of Study, Grades 9-10, Year 4 Students Only**

Graduation in 4 Years	Graduated	Returned	Transferred	Dropped Out
Academic	81.6%	13.2%	2.2%	2.9%
Applied	39.2%	40.9%	5.2%	14.8%
Essentials	20.3%	51.7%	4.9%	23.1%
Undefined	41.7%	33%	11.5%	13.8%
Total	67.5%	22%	3.5%	7%

**THE TREND:** Graduating on time (after 4 years of secondary school) varied across Programs of Study.

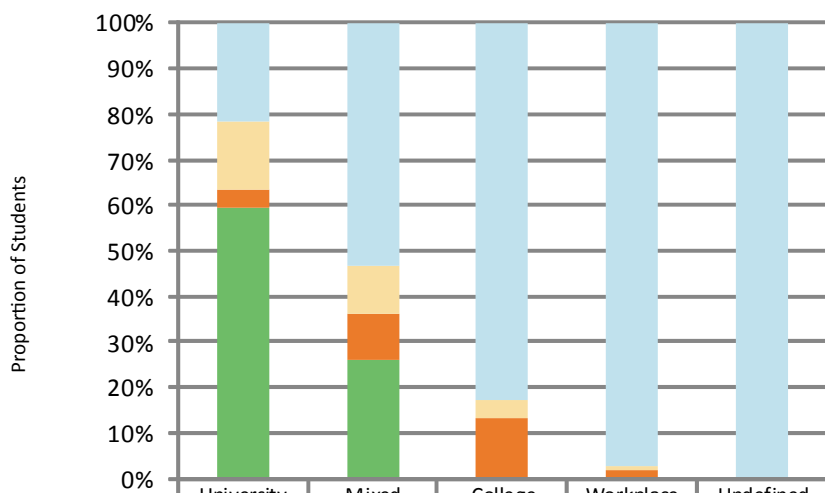
- 81.6% of students who took the Academic POS in Grades 9-10 graduated on time. Whereas, only 39.2% of students who had taken the Applied POS and 20.3% of students who had taken the Essentials POS graduated on time (see Table 3).

# Programs of Study: Pathways through Secondary School

## What is it?

- Looking at students who were in Grade 12 for the first time (2011-12), Figures 2 and 3 explore **Post-secondary Pathways (PSE) across Grade 12 Level of Study**.

**Figure 2: Ontario Post-secondary Confirmations across Grade 12 Level of Study, Year 4 Students Only**

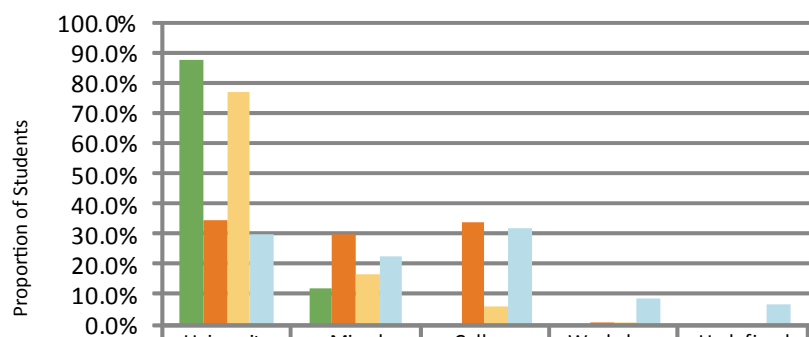


	University	Mixed	College	Workplace	Undefined
Did not Apply	21.7%	53.2%	82.7%	97.4%	100.0%
Applied but no confirm	15.0%	10.4%	4.1%	0.9%	0.0%
Confirm College	3.8%	10.5%	13.2%	1.7%	0.0%
Confirm University	59.4%	25.8%	0.0%	0.0%	0.0%

**THE TREND:** Confirmation of an offer to university is closely tied to the level of study taken in Grade 12.

- Of Grade 12 students who took the majority of their courses at the University level, 59.4% confirmed an offer to an Ontario university. 25.8% of students who took a majority of Mixed level courses confirmed an offer to an Ontario university. There were no university confirmations for students who took the majority of their Grade 11-12 courses in the College, Workplace or who had an Undefined Program of Study.
- Although 21.7% of students taking University level courses did not apply, this number rose to 53.2% of students taking Mixed level courses, 82.7% of students taking College level courses, and 97.4% of students taking Workplace level courses.

**Figure 3: Ontario Post-secondary Confirmations across Grade 12 Level of Study, Year 4 Students Only**



	University	Mixed	College	Workplace	Undefined
Confirm University	88.2%	11.8%	0.0%	0.0%	0.0%
Confirm College	34.9%	29.7%	34.3%	1.0%	0.0%
Applied but no confirm	77.2%	16.6%	5.9%	0.3%	0.0%
Did not Apply	29.8%	22.5%	32.2%	8.8%	6.7%

**THE TREND:** Students who take the majority of their Grade 12 courses at the University level have far greater PSE options than students who take the majority of their Grade 12 courses at the College or Workplace levels.

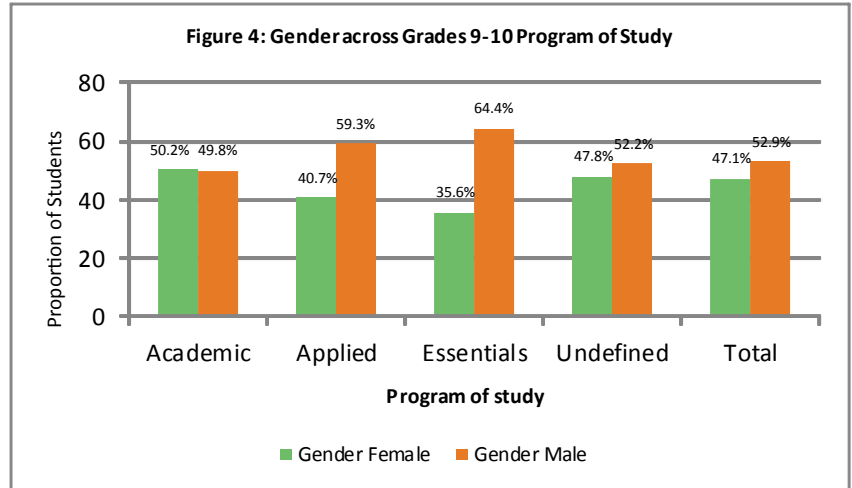
- Of students who confirmed an offer to university, 88.2% had taken the majority of their Grade 12 courses at the University level and 11.8% at the Mixed level.
- Only 34.3% of students who accepted an offer to college took the majority of their Grade 12 courses at the College level. In fact, the majority of students who accepted an offer to college took the majority of their Grade 12 courses at the University and Mixed levels.

# Programs of Study: Pathways through Secondary School

## What is it?

- The following analyses explores the relationship between the **Grades 9-10 Program of Study** across students' self-identified **Gender** and **Racial** categories.

**THE TREND:** There is a 5.8% gender difference between the total number of females (47.1%) and males (52.9%) in the secondary school panel. However, gender proportions are close to equal in the Academic POS, demonstrating a slight over-representation of female students. There are notable disparities in gender representation in both the Applied and Essentials Programs of Study with a substantial over-representation of male students. The gender proportions for students with an Undefined POS mirror the gender proportions of the total population.



**THE TREND:** Proportionate representation of race across Programs of Study is a highly politicized issue of equity.

- For example, the overall self-identified Black population is 12.6% across the secondary school panel; however, 29.3% of the student population taking the Essentials POS has self-identified as Black. Self-identified Black students are also over-represented in the Applied POS at 22.7% and are under-represented in the Academic POS at 8.8%.
- Despite a slight under-representation in the Applied POS (23.8%), students who self-identified as White are generally equitably represented across the Academic (29.9%) and Essentials (26.5%) POS.
- Both self-identified East Asian (17.9%) and South Asian (21%) students were over-represented in the Academic POS; however, self-identified East Asian students were notably under-represented in both the Applied (10.5%) and Essentials (5.1%) Programs of Study. Self-identified South Asian students were also under-represented in the Applied (16.9%) and Essentials (15.9%) Programs of Study.
- Self-identified Aboriginal students are notably under-represented in the Academic POS (0.1%), more than doubly represented in the Applied POS (0.7%), and have quadrupled representation in the Essentials POS (1.2%).

**Table 4: Self-identified Race across Programs of Study**

Race Across POS	Aboriginal	Black	East Asian	Latin American	Middle Eastern	Mixed	South Asian	Southeast Asian	White
Academic	0.1%	8.8%	20.5%	1.7%	4.9%	6.6%	22.7%	4.7%	29.9%
Applied	0.7%	22.7%	10.5%	3.8%	7.9%	7.9%	16.9%	5.8%	23.8%
Essentials	1.2%	29.3%	5.1%	3.5%	7.6%	7%	15.9%	4%	26.5%
Undefined	0.4%	16.1%	21.6%	2.9%	8.1%	5.5%	16.7%	5.4%	23.3%
Total	0.3%	12.6%	17.9%	2.2%	5.8%	6.9%	21%	4.9%	28.3%

# Programs of Study: Pathways through Secondary School

## What is it?

- The following analyses explores the relationship between **Grades 9-10 Program of Study** across students' **First Language** categories.

Table 5: Student Language across Grades 9-10 Program of Study

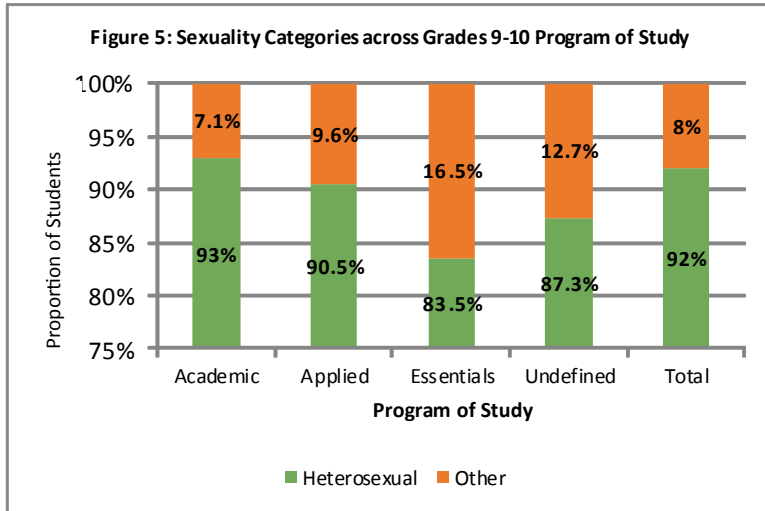
First Language	Academic	Applied	Essentials	Undefined
Albanian	75.2%	18.5%	2.1%	4.2%
Arabic	60.8%	28.3%	4.8%	6.0%
Bengali	83.6%	10.9%	1.4%	4.1%
Chinese	79.1%	14.9%	1.1%	4.9%
Dari	40.2%	46.9%	9.1%	3.9%
English	60.6%	30.4%	5.2%	3.8%
French	70.5%	16.9%	4.0%	8.6%
Greek	71.2%	22.2%	3.0%	
Gujarati	76.3%	18.0%	2.6%	3.0%
Hindi	80.7%	14.1%	1.4%	
Korean	85.8%	9.4%	0.8%	4.0%
Pashto	48.7%	40.8%	7.1%	3.3%
Persian	60.8%	27.8%	4.7%	6.6%
Portuguese	51.5%	35.8%	7.3%	5.3%
Punjabi	72.7%	22.6%	2.3%	2.4%
Romanian	80.9%	12.8%	3.0%	3.3%
Russian	80.8%	14.5%	0.9%	3.8%
Serbian	87.5%	9.9%	0.7%	1.9%
Somali	65.6%	24.7%	3.5%	6.2%
Spanish	47.3%	39.4%	6.0%	7.2%
Tagalog	54.6%	37.1%	2.7%	5.7%
Tamil	79.4%	15.3%	2.5%	
Turkish	54.7%	34.8%	5.9%	4.7%
Urdu	71.9%	20.4%	3.4%	
Vietnamese	75.2%	19.0%	2.3%	3.5%
Total TDSB	65.7%	25.4%	4.1%	4.8%

**The Trend:** In an analysis of student language, students most likely to be in the Academic Program of Study are students whose first language was Bengali, Hindi, Korean, Romanian, Russian, and Serbian. Students who spoke Dari, Pashto, and Spanish had notably less representation in the Academic Program of Study and were over-represented in the Applied Program of Study. Language groups over-represented (5%<) in the Essentials Program of Study were Dari, English, Pashto, Portuguese, Spanish, and Turkish.

# Programs of Study: Pathways through Secondary School

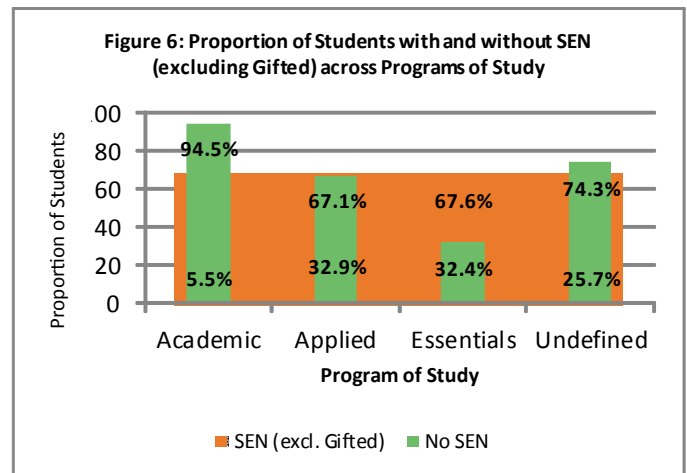
## What is it?

- The following analyses explore the relationship between students' self-identified **Sexual Orientation** data derived from the TDSB's 2011 Student Census and **Special Education Needs (SEN)** data derived from Trillium across the **Grades 9-10 Program of Study**.



**THE TREND:** Sexuality is a more recently explored demographic characteristic in terms of its relationship to POS. The results demonstrated that 93% of students enrolled in the Academic POS self-identified as Heterosexual, while 7.1% of students self-identified as either Gay, Lesbian, Bisexual, Not sure/questioning, or Other. The proportion of students self-identifying as Heterosexual dropped in both the Applied (90.5%) and Essentials (83.5%) Programs of Study. Students with an Undefined POS self-identified as Heterosexual at a rate of 87.3%.

**THE TREND:** The overall proportion of students identified with SEN (excluding Gifted) across the TDSB's secondary school panel is 15.9%; however, this proportion varies across POS. The proportion of students identified as having an SEN in the Academic POS is 5.5%. This proportion rose to 32.9% (double the overall average) for students taking the majority of their Grade 9-10 courses in the Applied POS. For students taking the majority of their Grade 9-10 courses in the Essentials POS, the proportion of students with SEN is over four times the TDSB average at 67.6%.



**THE TREND:** Of students with SEN in the Academic POS, students who only have an IEP (no formal identification) make up 29.1%. Students identified as having a Learning Disability represent 21.8%, students with Giftedness represent 44.4%, and a small proportion of students with MID (0.3%) make up the majority of students with SEN in the Academic POS. The proportion of students identified as having a Learning Disability (40.4%), MID (5.5%), and students who only have an IEP (40.4%) rose in the Applied POS. Of students enrolled in the Essentials POS, 39.6% were students identified as having an MID, over a quarter (25.9%) were identified as having a Learning Disability, and 17.5% were students who only had an IEP.

**Table 6: Proportionate Representation of Key Exceptionalities across Grades 9-10 Program of Study, 2011-12**

SEN across POS	IEP Only	Autism	Deaf	LD	Lang. Impair.	Gifted	Mild Int Disability	Dev. Disability	Blind and Low Vision	Physical Disability	Multiple Exception	Behaviour
Academic	29.1%	1.8%	0.5%	21.8%	0.3%	44.4%	0.3%	0%	0.2%	0.6%	0.1%	0.8%
Applied	40.4%	1.8%	0.6%	45.9%	1%	0.1%	5.5%	0%	0.1%	0.5%	0.1%	3.9%
Essentials	17.5%	5.2%	0.4%	25.9%	1.1%	0%	39.6%	3%	0.1%	2%	0.2%	5%
Undefined	12.8%	12.8%	1.3%	8%	0.4%	1.4%	17.5%	37.1%	0.3%	5.8%	0.2%	2.5%
Total	31.4%	3%	0.6%	32.2%	0.8%	15.4%	9.5%	2.9%	0.1%	1.1%	0.1%	2.9%

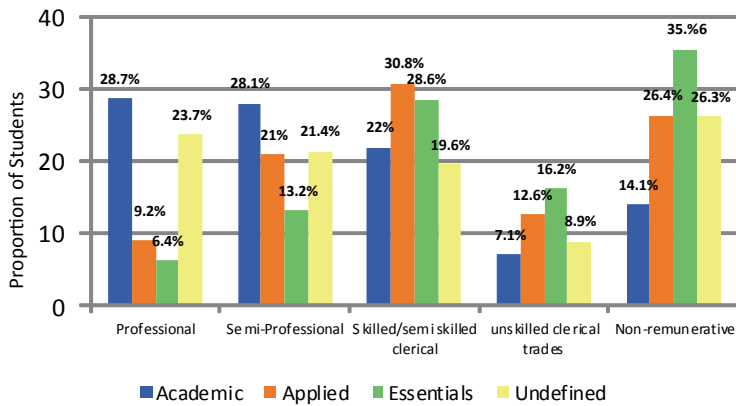


# Programs of Study: Pathways through Secondary School

## What is it?

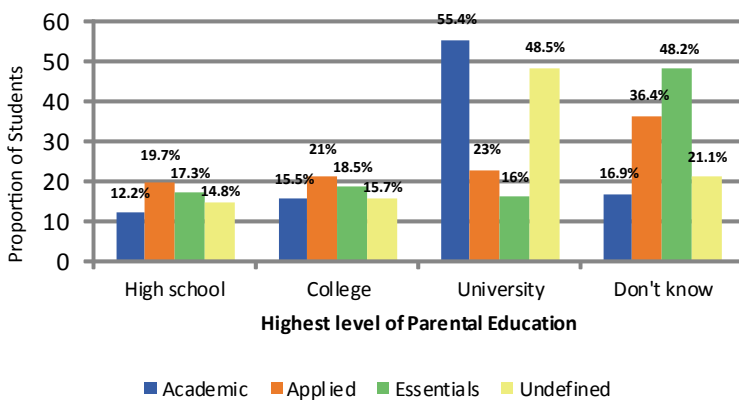
- Figures 7 to 9 reveal relationships between **Parental Occupation**, **Parental Education**, and **Parental Presence** across the **Grades 9-10 Program of Study**.

Figure 7: Parental Occupation across Grades 9-10 Program of Study



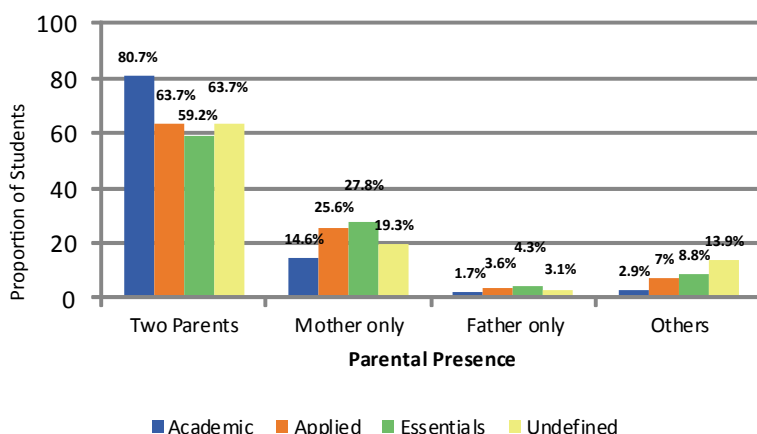
**THE TREND:** Of students in the Academic POS, 28.7% have parents who work in professional positions. This proportion dropped dramatically for both the Applied (9.2%) and Essentials (6.4%) Programs of Study. At the other end of the spectrum, of students whose parents were non-remunerative (17.2% of students in the secondary school panel), only 14.1% were represented in the Academic POS compared to 26.4% in the Applied and 35.6% in the Essentials Programs of Study.

Figure 8: Parental Education across Grades 9-10 Program of Study



**THE TREND:** Over half of students enrolled in the Academic POS (55.4%), whose pathway is intended to include access to university education, have parents who had themselves attended university. Comparatively, less than a quarter (23%) of students in the Applied and only 16% of students in the Essentials Programs of Study have parents who had attended university. Close to half (48.2%) of students in the Essentials POS indicated that they did not know their parents' highest level of attained education compared to 16.9% of students in the Academic POS.

Figure 9: Parental Presence across Grades 9-10 Program of Study

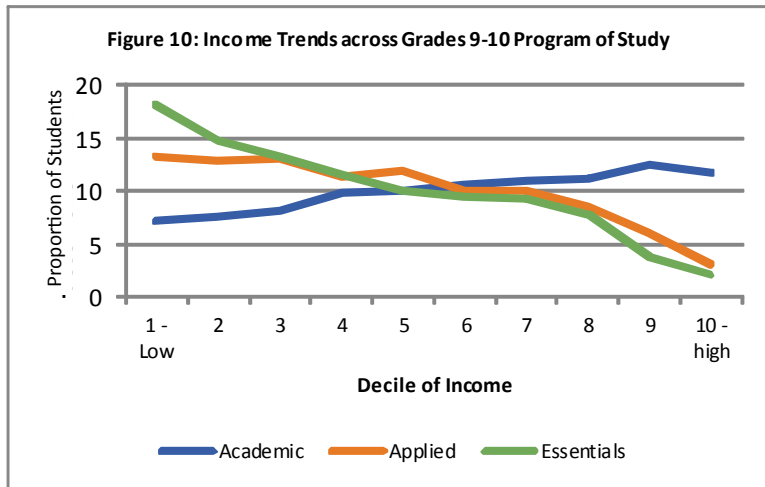


**THE TREND:** Of students in the Academic POS, 80.7% lived with both parents (this includes shared custody). The proportion dropped within the Applied and Essentials Programs of Study to 63.7% and 59.2% respectively. Conversely, the proportion of students who lived with their mother only, father only, and who lived in alternate situations was lowest in the Academic POS. The proportion of students living with their mother only, father only, or in other situations close to or more than doubles in the Applied and Essentials Programs of Study.

# Programs of Study: Pathways through Secondary School

## What is it?

- Figures 10 and 11 explore the relationships between **Family Income** and the **Learning Opportunity Index** across the **Grades 9-10 Program of Study**.



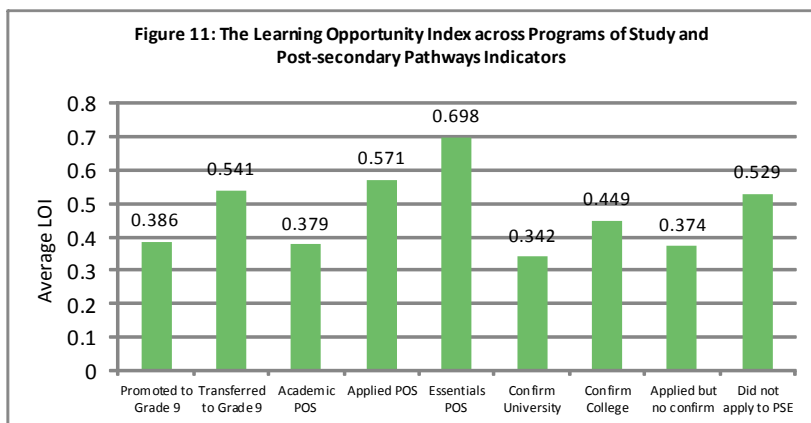
**THE TREND:** Students who are enrolled in the Academic POS are more likely to come from higher income households than students in both the Applied and Essentials Programs of Study. Conversely, students in the Essentials POS are much more likely to come from lower income households. Only 7.2% of students in the lowest income decile are in the Academic POS, compared to 13.2% in the Applied POS and 18.2% in the Essentials POS. Students from the highest income decile represent 11.7% of students in the Academic POS, 3% of students in the Applied POS, and 2.1% of students in the Essentials POS.

## What is it?

- The Learning Opportunity Index (LOI)** is a scale measuring external challenges facing students within the TDSB. It is a composite scale that includes median income, percentage of families whose income is below the Low Income Measure (before tax), percentage of families receiving social assistance, adults with low education, adults with university degrees, and lone-parent families.
- The minimum mean LOI across the secondary school panel is 0.001 which represents the least level of external challenges. The maximum mean LOI across the secondary school panel is 0.956 which represents the highest level of external challenges. The mean LOI across the secondary school panel is 0.45.

## THE TREND:

- The LOI score for students who have been promoted from Grade 8 to Grade 9 was substantially higher at 0.386 than for students who had been transferred at 0.541.



Similar trends of stratification are observed across Programs of Study. The mean LOI for the Academic POS is 0.379 which rises to 0.571 for the Applied and 0.698 for the Essentials Programs of Study. The rise in the mean LOI score across Programs of Study demonstrates the rise in external challenges facing students in the Applied and Essentials Programs of Study as compared to the Academic POS.

- Students with the least access to university or post-secondary opportunities (students who did not apply) had a substantially higher average LOI score (0.529) than students who confirmed an offer of admission to university (0.342).

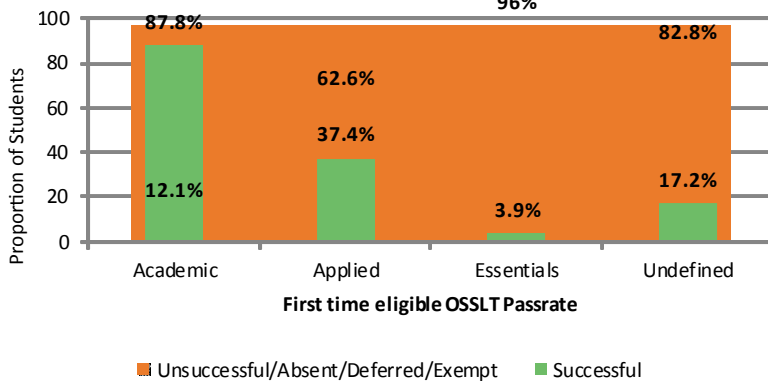


# Programs of Study: Pathways through Secondary School

## What is it?

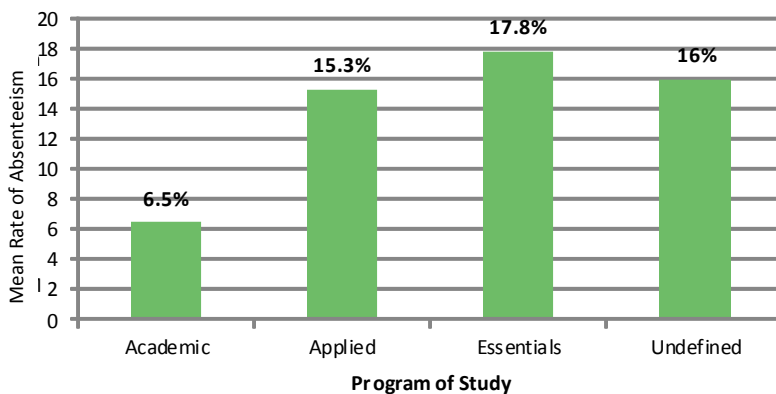
- Figures 12 to 14 explore the relationship between student success on the **Ontario Secondary School Literacy Test (OSSLT)**, **Rate of Suspension** and experience of **Belonging and Exclusion** across the **Grades 9-10 Program of Study**.

Figure 12: OSSLT Results for First-time Eligible Students across Grades 9-10 Program of Study



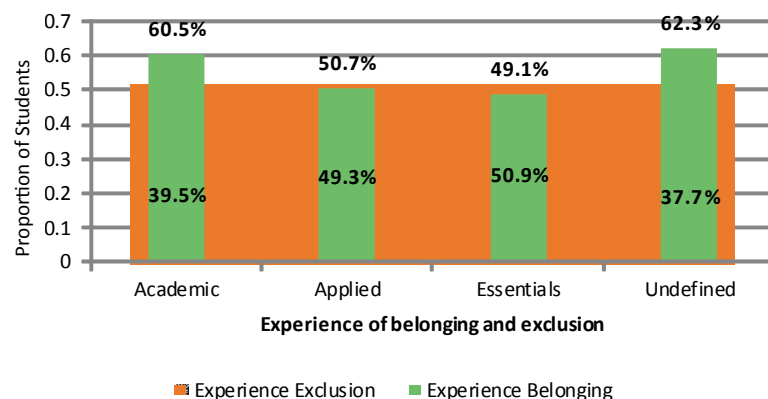
**THE TREND:** Results of the OSSLT revealed that 87.8% of students in the Academic POS passed the first time they were eligible to write. However, the pass rate for first-time eligible students dropped dramatically for students in the Applied POS (37.4%) and even further for the Essentials POS, dropping to 3.9%.

Figure 13: Absenteeism across Grades 9-10 Program of Study



**THE TREND:** The average Grade 9-12 absenteeism rates for 2011-12 was 9.5%. However, there was a very wide range across Programs of Study. The absenteeism rate for students in the Academic POS was 6.5% which rose to 15.3% for students in the Applied and 17.8% for students in the Essentials Programs of Study.

Figure 14: Experience of Belonging and Exclusion across Grades 9-10 Program of Study



**THE TREND:** Based on a scale which captures students' experiences of safety, shared power, inclusion, and acceptance within their school communities, students in the Academic POS were more likely to experience a sense of belonging at 60.5% compared to students in the Applied POS at 50.7%. Conversely, the rate of student reported exclusion dropped from 49.3% of students in the Applied POS to 39.5% of students in the Academic POS. Students in the Essentials POS were more likely to experience exclusion (50.9%) than to experience belonging (49.1%) within their school communities.