Early Supports for Accessing Postsecondary Education: Good, Bad or Indifferent?

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Published by

The Higher Education Quality Council of Ontario

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Cite this publication in the following format:

Deller, F. & Tamburri, R. (2019). *Early Supports for Accessing Postsecondary Education: Good, Bad or Indifferent?* Toronto: Higher Education Quality Council of Ontario.

Acknowledgements:

The authors would like to thank Jackie Pichette, Elyse K. Watkins and Ken Chatoor for their assistance in preparing this report.

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Executive Summary

A high school diploma is an important stepping-stone on the road to higher education. It is in high school where young people make important decisions about whether to apply to postsecondary programs. Academic performance and course selections in Grades 9 and 10 will affect decisions made in later years, as well as postsecondary options and career choices beyond.

High school graduation rates in Ontario have reached record highs after increasing for more than a decade. The five-year graduation rate stood at 86.3% in 2017, up more than 18 percentage points from 2004. Still, a significant proportion of young people are not pursuing postsecondary studies. The proportion of those between the ages of 25 and 34 who had completed high school as their highest level of education was 22% in 2016 and the proportion of those who were without a high school diploma was 8%.

Who are the young people that struggle with finishing high school, and what obstacles stand in their way? Research has found that race, gender, parental education, socioeconomic status and family structure are important determinants of high school success, although there is evidence to suggest that the impact of some factors may have weakened in recent years, perhaps because of student support programs and policies introduced over the past two decades at the K–12 level.

There is room for improvement, however. To be most effective, interventions to support at-risk and disengaged students need to be at the K–12 level. We suggest the following recommendations to improve the current student support structures and policies to ensure that all young people in Ontario have an equal opportunity to succeed in school and in life.

- High schools in the province should end the practice of streaming students in Grades 9 and 10 into academic and applied tracks of study.
- The provincial government and postsecondary institutions should better fund and promote transition and bridging programs that allow those who have not completed high school for various extenuating circumstances to move directly into college or university.
- Federal and provincial governments should make enrolment in postsecondary savings plans for low-income families and debt-repayment assistance plans for students automatic.
- The provincial government should evaluate the outcomes of supports currently in place at the high school level, such as the Specialist High Skills Major, dual credit and co-op programs, to ensure that they are creating successful pathways to postsecondary education for at-risk youth.
- Federal and provincial governments should better fund existing community-based early intervention programs that support the most vulnerable of youth and identify additional communities that would benefit from such programs.

- Institutions and governments should continue to expand the use of the Ontario Education Number (OEN) to track Ontario students throughout their educational journey with the goal of identifying those who are struggling and what obstacles stand in their way as well as helping them regain their footing when they stumble.

Introduction

In recent years a considerable body of research has documented how certain groups of young people are underrepresented in higher education. Students from low-income households, Indigenous students, those with disabilities and first-generation students (those whose parents didn't complete postsecondary) are less likely to pursue postsecondary studies and attain a credential.

We argued in an earlier report that the education system can no longer address these disparities by increasing the number of seats in universities and colleges. This approach, the growth model, has been in place for more than a decade, and while it has increased overall enrolment by more than 30%, it has done little to achieve equitable access for students from traditionally underrepresented backgrounds. Nor is it financially sustainable for governments and institutions (Deller, Kaufman & Tamburri, 2019).

We suggested, instead, a twofold approach to improving the equity of access to postsecondary education. First, we must gain a better understanding of who is going to postsecondary and who still finds access challenging so that we might better target supports and policies to help those students who need it the most.

Second, we must acknowledge that decisions about whether to access PSE start very early in the educational pathway, in elementary and secondary studies, and that attempts to improve equity of access at the postsecondary level or at the end of high school will not have a major impact on diminishing the equity access gap. Rather, we should look to the role that the K–12 system plays in supporting equity of access to postsecondary. And we should examine the gaps in supports for disadvantaged or disengaged youth so that we might do a better job of filling in those gaps in a way that is responsive and effective for those students who are most in need of help.

In this paper we take a closer look at the K–12 system, identify what we know about who graduates from high school, who goes on to PSE and who faces the greatest challenges along the way. We also look at the current structures, policies and programs in place for K–12 students designed to promote equity of access to PSE and make some recommendations about how to make these more responsive to student needs.

The Path to Postsecondary

Students generally follow one of three pathways to postsecondary education. They graduate from high school and enter directly into a college, university or an apprenticeship program. They graduate from high school and enter postsecondary education after a delay (known as indirect entry). They do not complete high school and take a non-traditional path to higher education.

In 2016–17, 32% of college students in Ontario entered directly from high school; an additional 20% of college students were delayed entrants and 17% had some PSE experience but hadn't completed a credential (Colleges Ontario, 2018). At Ontario universities, 78.6% of registered applicants entered directly from high school while 21.4% did not (COU, 2018).[1]

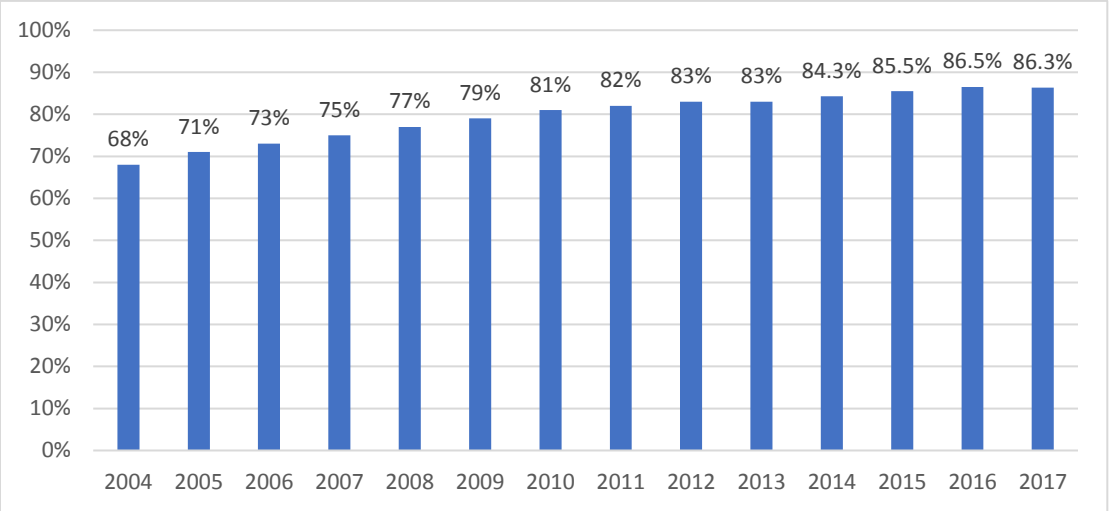
In addition, a small group of students go to postsecondary without graduating from high school. These include students who use bridging and other programs at universities and colleges (for example, Woodsworth College at the University of Toronto) that allow students to apply to PSE if they can demonstrate there were extenuating circumstances that interfered with completing high school. In 2016–17, 2% of entrants to Ontario colleges had not completed high school.

A HIGH SCHOOL DIPLOMA IS AN IMPORTANT STEPPING-STONE ON THE ROAD TO PSE. IT IS IN HIGH SCHOOL WHERE IMPORTANT DECISIONS ARE MADE ABOUT WHETHER TO APPLY TO POSTSECONDARY PROGRAMS.

While some students go to postsecondary without completing high school, the vast majority in fact do. A high school diploma is an important stepping-stone on the road to PSE. It is in high school where important decisions are made about whether to apply to postsecondary programs. Course selections made in Grades 9 and 10 can affect decisions made later in high school, as well as postsecondary options and career choices.

[1] The 21.4% of students who did not enter directly included those who had delayed their entry into PSE, students who had at least some college or university experience, and students who had completed night school and correspondence courses, among others.

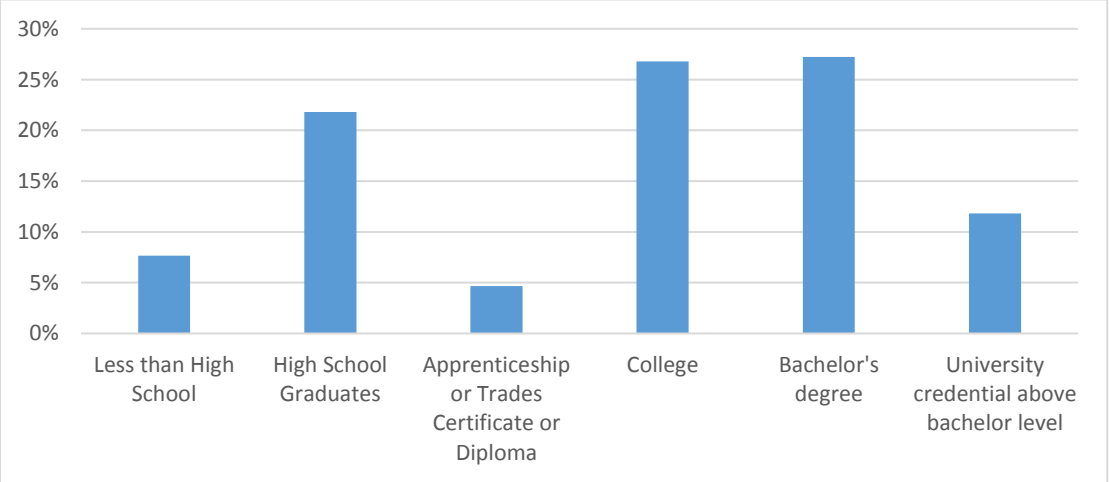
Figure 1: Ontario Five-year High School Graduation Rates



Source: Ministry of Education

Over the last 15 years high school graduation rates in Ontario have increased and reached record highs. The five-year high school graduation rate was 86.3% in 2017, up from 68% in 2004. More students than ever are graduating from high school and obtaining a postsecondary credential. This is a positive trend. However, a significant proportion of youth in the province is not pursuing postsecondary studies. In Ontario, the proportion of individuals between the ages of 25 and 34 who had completed high school as their highest level of education was 22% in 2016 and the proportion who were without a high school diploma was 8% (Statistics Canada, 2017).

Figure 2: Educational Attainment of Ontarians, 25–34 Years Old



Source: 2016 Census (Statistics Canada, 2017)

Not everyone will choose to pursue a university or college education. However, for the vast majority of those who do, the first step along that pathway begins with successfully completing high school. Who are the students who struggle to graduate from high school? What obstacles stand in their way?

A Statistics Canada report examining the characteristics of young Canadians between the ages of 25 and 34 who had not finished high school found that 20% of Indigenous men and 16% of Indigenous women did not have a high school diploma in 2016. (Uppal, 2017). The same study found that 11% of people without a high school diploma reported at least one type of chronic disability compared to less than 4% of those with a university degree. The most prevalent condition reported was mental/psychological in nature.

The report also points out that although the number of people without a high school diploma has declined over time, this group faces significant labour market challenges that are becoming more pronounced. In 2016, the employment rate among those without a high school diploma was 67% for young men and 41% for young women, the lowest rates recorded since the early 1990s. This group reported lower income and was also more likely to be dependent on government transfers (Uppal, 2017).

Research conducted by the Toronto District School Board (TDSB), the largest school board in the country, has found that race, gender, parental education, socioeconomic status and family structure are important determinants of high school success, although there is evidence to suggest that the impact of some of these factors may have weakened in recent years, perhaps because of programs and policies introduced at the K–12 level, which are discussed below. (Robson, Maier, Anisef & Brown, forthcoming).

The Role of Streaming

Secondary schools play an important "gateway" role in selecting students who will enter higher education institutions. One way they do this is by streaming students into academic or applied tracks (Robson et al., forthcoming).

Streaming refers to the practice of separating students into instructional groups based on perceived ability. Until the end of Grade 8, all students take the same courses. In Grades 9 and 10, they must choose between three principal tracks: academic, applied and open courses. According to the Ministry of Education, academic courses "develop students' knowledge and skills through the study of theory and abstract problems"; applied courses "focus on the essential concepts of a subject and develop students' knowledge and skills through practical applications and concrete examples"; and open courses "are designed to broaden students' knowledge and skills in subjects that reflect their interests" and are "not designed with the specific requirements of university, college, or the workplace in mind." Students can select a combination of academic, applied and open courses. Schools must offer academic and applied courses in English, math, science, history, geography and French as a second language (Ministry of Education, 2016a p. 71).

In Grades 11 and 12, students choose between five types of courses: college preparation, university preparation, university and college preparation, workplace preparation and open courses. Academic courses selected in Grades 9 and 10 are prerequisites for university or college courses in Grades 11 and 12; and applied courses are prerequisites for college and workplace courses.

Course selections made in Grade 9 affect those made in later high school years and postsecondary pathways. Students who change their mind about their chosen academic track are permitted to change and schools must make provisions for them to do so. However, in the case of math, the sole prerequisite for Grade 10 academic math is Grade 9 academic math. The only way a student may transition from Grade 9 applied math to Grade 10 academic math is to take a designated transfer course or to take the Grade 9 academic course (Ministry of Education, 2016a). According to research by People for Education, an advocacy group, when asked how often students transfer from applied to academic streams, 47% of high school principals replied "never" or "not very often." (People for Education, 2019, p. 11).

Research studies have consistently shown that racialized students, especially Black males, and students from lower-income families are more likely to go into applied courses whereas students from wealthier families are more likely to go into the academic stream (Robson et al., forthcoming).

The TDSB has argued that Ontario's current system of academic and applied courses effectively establishes lower expectations for some students, particularly disadvantaged ones. With university- and college-bound academic courses taken in Grades 9 and 10 acting as prerequisites for academic courses in Grades 11 and 12, course selections made as early as Grade 8 can limit students' postsecondary access and career choices later in life (TDSB, 2017).

TDSB research has shown that students in applied courses are less likely to graduate from high school than students in academic courses (Brown & Tam, 2017a). Students in academic courses are more likely to be accepted into postsecondary programs than those in applied courses. Even though applied courses are intended to lead to college as well as university, only 37% of TDSB students in applied courses were accepted into college (Brown & Tam, 2017b).

Similarly, TDSB data shows a persistent gap in graduation rates between students in the academic stream and those in the applied. Of students who entered Grade 9 in 2006, 88% of those in academic programs graduated from high school by 2011 compared to 59% of those in applied courses; of students who entered Grade 9 in 2011, 93% of those in the academic stream graduated on time compared to 69% in the applied stream (Robson et al., forthcoming).

Students in applied courses also demonstrated lower results on provincial assessments. Data published by the Education Quality and Accountability Office (EQAO), a government agency, shows that in the 2017–18 school year, 45% of students enrolled in the Grade 9 applied math course achieved a score at or above the provincial standard, compared to 84% of students in the academic course (EQAO, 2018). One-quarter of students who were enrolled in Grade 9 applied math or English didn't graduate from high school within five years compared to 5% of students enrolled in academic courses (Ministry of Education, 2017). Similarly, 90% of students in academic courses passed the Grade 10 Ontario

Secondary School Literacy Test, a prerequisite for a high school diploma, compared with 39% of students in applied courses (EQAO, 2018).

The Organization for Economic Co-operation and Development has advised countries against streaming, given evidence that the practice negatively impacts those from already disadvantaged backgrounds. "Early student selection has a negative impact on students assigned to lower tracks and exacerbates inequities, without raising average performance," it found (OECD, 2012, p. 56).

> "EARLY STUDENT SELECTION HAS A NEGATIVE IMPACT ON STUDENTS ASSIGNED TO LOWER TRACKS AND EXACERBATES INEQUITIES, WITHOUT RAISING AVERAGE PERFORMANCE."
> ***— ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT***

Ontario is the only province in Canada that separates youth into academic and applied courses as early as Grade 9. Most others do so in Grade 10. (Ministry of Education, 2017). People for Education, citing EQAO results, has suggested that participation in applied courses depresses achievement. "Students with comparable academic backgrounds (i.e., similar scores, even poor scores on Grade 6 tests) are far more likely to do better in academic than applied courses" (People for Education, 2019, p. 9). The report also recommends that students and parents be given sufficient information about course choices including data on academic outcomes, graduation rates and postsecondary access. It also recommended eliminating applied courses in Grade 9 (People for Education, 2019).

In 2018, the TDSB committed to having a majority of Grade 9 and 10 students participate in academic level courses within three years. It said the current structure has led to inequitable outcomes and has the potential to limit postsecondary pathways (TDSB, 2018).

This commitment follows several successful destreaming pilot projects in Toronto high schools. C.W. Jefferys Collegiate Institute removed the option of taking applied courses in Grade 9 geography, English, science and French, as well as Grade 10 history, English and science (Gordon, 2017). The school's principal reported that average student performance increased as a result of the pilot, and students who otherwise would have chosen the applied courses performed better in academic courses than historical data suggests they would have in the applied. Pass rates in Grade 9 academic courses ranged from 93.3% to 100%. The principal acknowledged the pilot's success may not have been possible without extra resources such as academic tutors, professional development sessions for teachers and additional teacher support for students (Gala & Rajeswaran, 2016).

K–12 Structures to Support Access to PSE

In 2003, the government of then-premier Dalton McGuinty pledged to increase the high school graduation rate in the province. To reach the goal, the government implemented starting in early 2004 a broad strategy to improve student success, which included, among other things, the appointment of a student success leader at every board, a credit-recovery program to help students regain failed credits and alternative programs that are described below. The core initiatives, implemented between 2005 and 2008, were intended to close achievement gaps, support at-risk students, and offer a variety of learning options and pathways (Directions Evidence and Policy Research Group, 2014). In addition, the government raised the mandatory age for leaving school to 18 from 16 in 2006.

Below we look at three types of K–12 programs and policies intended to support traditionally underserved students in accessing PSE: the Student Success programs in Ontario high schools; the student financial assistance system and related savings incentives programs; and some early intervention programs.

Student Success Programs

The Ontario Ministry of Education has several student success initiatives in place to help at-risk students and provides targeted funding to the province's 72 publicly funded school boards to implement these programs. In the 2018–19 school year, the ministry budgeted $742.9 million through the Learning Opportunities Grant to support at-risk students. Of that amount, $362.9 million was allocated to boards based on demographic and economic measures such as household income and households with low parental education. Boards can use the money to fund supports such as breakfast programs and homework clubs.

Another $134.1 million was allocated for other initiatives, including Student Success programs (Ministry of Education, 2018a). The three major programs that make up the Student Success strategy are the Specialist High Skills Major (SHSM), dual credits and co-operative education. Together they are designed to allow students to customize their high school experience and foster greater engagement.

The Specialist High Skills Major (SHSM), introduced in 2006, is designed to allow students to focus their learning on a specific economic sector while meeting the requirements of the Ontario Secondary School Diploma (OSSD). It is also designed to help students transition to college, university, apprenticeship training or the workplace. According to the Ministry of Education, "these programs enable students to gain sector-specific skills and knowledge in engaging, career-related learning environments, and to prepare in a focused way for graduation and postsecondary education, training, or employment" (Ministry of Education, 2016b, p. ii). While all school boards are supposed to offer the SHSM program, a scan of schools on the ministry's website indicates that only select high schools in each school board in fact do so. In 2010–11, the most recent year for which figures are available, 28,000 students were enrolled in SHSM programs. In the same year, there were 390,183 students enrolled in Grades 11 and 12, the years in which students can take the program. (Ministry of Education, n.d.).

Dual credits allow high school students to take college or apprenticeship courses that count toward both a high school diploma and a college diploma or apprenticeship certificate. Students can earn up to four college-delivered dual credits that count toward their high school diploma. A Ministry of Education document states that the intent of the program is to support students who face greater challenges in completing high school and accessing college. "Dual credit programs are intended to assist secondary school students in completing their OSSD and making a successful transition to college and/or apprenticeship programs. The primary focus is on students who face significant challenges in completing the requirements for graduation but have the potential to succeed. This group includes disengaged and underachieving students who have the potential to succeed but are at risk of not graduating, and students who left school before graduating" (Ministry of Education, 2013, p. 5). In 2015–16, there were 20,264 students enrolled in the dual credit program, out of a possible 346,854 students enrolled in Grades 11 and 12 (Ministry of Education, n.d.).

There is some evidence to suggest that students who participate in a dual credit program believe it contributes to their success in transitioning to and succeeding in college, and that the program itself is well subscribed (George Brown College, 2014). However, there is little evidence that the program is effective in creating increased opportunities for students who are in fact struggling to complete high school and participate in PSE (Ungerleider, 2008; Auditor General of Ontario, 2011). In other words, it is unclear whether the program is used to support students who face challenges in completing high school or those who are already on the path to participating in college or apprenticeship.

Co-operative education allows students to earn up to two co-op credits that count toward their high school diploma. The policy intent of co-operative education is to provide "secondary school students with a wide range of rigorous learning opportunities connected to communities outside the school. It is designed to recognize and respond to the diversity of Ontario's student population, and it can engage all students" (Ministry of Education, 2018b, p. 8). The policy intent of co-operative education does not seem to be aimed specifically at disadvantaged students, and there is a focus on creating unique pathways that suit all students' needs and creating an environment that supports positive mental health and well-being (Ministry of Education, 2018b). There are no publicly available enrolment numbers for students in co-op programs.

In addition to these three programs, all high schools have a dedicated School Success Team, which comprises the principal, a student success teacher, a guidance counsellor and a special education teacher who work to provide support for students who are struggling or in need or extra attention.

In 2008, the Canadian Council on Learning completed an external evaluation led by Charles Ungerleider of the student success strategy at the request of the provincial government. The evaluation found that the strategy was generally viewed favourably by students, administrators and teachers, and seemed to be changing the learning environment for students in a positive way. The evaluation also noted that overall drop-out rates decreased, aggregate graduation rates increased and more students met credit accumulation requirements during the time since the strategy was introduced (Ungerleider, 2008). However, it was not possible to tell whether the strategy was directly responsible for those changes, or

if the strategy was supporting those students who needed support the most. The evaluation did address the issue of using data to target resources to those students and schools that needed them the most, and found that while that was the intent, teachers and administrators were struggling with how to do this more effectively.

Finally, the ministry provides an additional $3 billion a year for special education services and programs to students identified as having special needs (Ministry of Education, 2018a).[2] In the 2014–15 school year, about 178,000 students were formally identified by an Identification, Placement and Review Committee (IPRC) as having special needs; an additional 162,000 students were not formally identified but were provided with special education programs and services nonetheless. Such an identification is made by the IPRC usually after an individual educational assessment has been conducted. Based on the assessment, the committee decides if the identified student should be placed in a special education class or in a regular classroom with supports. Schools are required to develop an Individual Education Plan (IEP) for all identified students, a written plan that specifies what supports the student will receive. The supports can include learning accommodations, such as the use of assistive technologies or extra time on tests, and accommodations to the curriculum.

Research conducted by the TDSB revealed that Black students were overrepresented in special education programs while white students were more likely to be placed in gifted programs (Brown & Parekh, 2010). Meanwhile, a task force set up by the TDSB heard from participants that existing services did not adequately meet the needs of students (TDSB, 2017).

A separate study also using TDSB data found that while high school graduation rates have increased in recent years for both students with special education needs and those without, the graduation gap between the two groups widened significantly. Students with special education needs saw a marginal increase in the predicted probability of successfully completing high school while students without saw a dramatic increase (Robson et al., forthcoming).

Student Financial Assistance

Governments also promote access to higher education through student financial assistance programs that are designed to help students pay for the cost of their studies. Students in Ontario can access financial assistance primarily through two longstanding provincial and federal government programs, the Ontario Student Assistance Program (OSAP) and the Canada Student Loans Program (CSLP). These programs provide grants and subsidized loans to students based on financial need and have undergone considerable revisions over the past 20 years. Together the two levels of government spend about $5 billion a year to provide loans and grants to eligible students (ESDC, 2018a; Auditor General of Ontario, 2018).[3]

[2] The exceptionalities that qualify a student for special education include learning disability, mild intellectual disability, behavioural disability, developmental disability, multiple exceptionalities, autism, physical disability, deaf and hard of hearing, blind and low vision, speech impairment, language impairment and giftedness.

[3] This amount varies by year depending on the number of students who qualify for assistance and changes to the program.

We cannot know for certain how effective these programs are because we have no way of knowing what participation rates for lower-income youth would have been if the programs did not exist. However, we can make some observations based on existing data. In a forthcoming report by the Social Research and Demonstration Corporation (SRDC), the authors argue that there has been an increase in PSE attainment for low-income youth in Ontario that corresponds with the introduction in 2012 of the 30% Off Ontario Tuition Grant. The grant was designed to make postsecondary education more affordable for students from lower-income families. It provided up to $1,900 a year to students from families with a combined income of $160,000 or less. The value was raised in subsequent years to keep pace with inflation but has since been discontinued. SRDC found that Ontario was the only province to see improvements in access to postsecondary institutions among students from lower-income families between 1995 and 2015. The adjusted attendance rate of those from lower-income backgrounds rose from 46.2% to 51% during those years (Ford, Hui & Nguyen, forthcoming).

In a 2017 Statistics Canada paper, Marc Frenette looked at the same trends in participation but used the tuition tax credit as a proxy for participation, and only looked at universities, which traditionally have had a much lower participation rate of low-income students than colleges. Frenette found that the use of the tuition tax credit — and thus participation — increased among low-income students in Ontario in a way that it had not in other provinces. (Frenette, 2017). In a second and more recent study on low-income students, this time using the Education and Labour Market Longitudinal Linkage Platform, Frenette found that while low-income students continue to struggle getting to postsecondary, the gap is narrowing, and low-income students are attending postsecondary in proportionally larger numbers than previously (Frenette, 2019).

While Frenette does not speculate as to the reason for this increase, as the SRDC report does, the studies agree that the trend is apparent only in Ontario and not in other provinces, suggesting that there may be something about the Ontario student aid system or related policies over the last two decades that have led or contributed to the increase.

The difficulty lies in isolating a single policy or program that may have driven the increase in participation among low-income students. This makes it challenging to identify what is working and what is having a lesser effect.

In addition to financial aid, both the province and the federal government offer repayment assistance to student borrowers who have difficulty repaying their loans. The Repayment Assistance Plan provides interest relief and debt reduction to help eligible borrowers repay their student loans within 15 years. Students must apply to be eligible for the program. In 2016–17, the most recent year that data is available, 188,157 OSAP borrowers made use of some part of the repayment assistance program to help them pay back their loans after leaving school (ESDC, 2018a).

The federal government also offers incentives to parents to save for their children's higher education. The Registered Education Savings Plan (RESP) is the cornerstone of these programs. Introduced in 1972, RESPs allow parents to put aside savings in a tax-free account that can be used to pay for college,

university or apprenticeship programs. Since then, the government has introduced several enhancements. The Canada Education Savings Grant is a matching contribution to the RESP made by the federal government. It provides a grant of 20% on the first $2,500 of annual contributions regardless of family income, plus an additional 10% to 20% to children from low- and middle-income families up to a lifetime limit of $7,200 per child. In addition, the Canada Learning Bond (CLB) provides an additional $2,000 for the lowest-income families. Parents must have an RESP to receive the CLB, although they do not need to make a contribution to receive it.

Research indicates that RESPs are used disproportionately by wealthier families. In 2014, 68% of parents with an annual income of $120,000 had an RESP compared to 37% of families earning less than $32,000. And many parents who would qualify for the CLB do not receive it because they do not have an RESP. (Parkin, 2016). The take up of the CLB has increased in recent years to almost 35% in 2016 from 0.2% in 2005. Still, the federal government estimates that two-thirds of eligible children, or 1.8 million Canadian children, are not receiving the benefit (ESDC, 2018b). In the 2018 federal budget, Ottawa allocated $12.5 million over six years to fund pilot programs that increase awareness about the CLB.

Several public policy experts have called on the federal government to make the program more flexible and to make enrolment in the CLB automatic at birth rather than putting the onus on parents to open an account (Parkin, 2016; Corak, 2018). Berger and Baldwin, have argued that "it would be better if [the Canada Learning Bond] were transformed from an opt-in program to an automatic entitlement for low-income families, along the lines of the [National Child Benefit Supplement] … An auto-enrol CLB could then be treated as a virtual individual development account in which the government contribution accumulates and is held for children until they pursue a postsecondary education" (Berger & Baldwin, 2009, p. 172).

Researcher Trina Shanks has made a similar argument regarding how savings vehicles in the United States are used and the fact that the highest take up is seen among middle- and high-income families. She states that "experience thus far points to several key lessons," including that "if the priority is to reach all children and not have [Child Development Accounts] reproduce intergenerational disadvantage, it seems clear that automatic enrolment and deposits are necessary, especially for the most vulnerable populations to participate" (Shanks, 2014, p. 15).

The same argument can be made for debt reduction and repayment of student loans. There is evidence from other jurisdictions that programs that automatically accrue to low-income students may have an impact on the participation of low-income and first-generation students in PSE. For example, Australia's debt repayment system, The Higher Education Contribution System and The Higher Education Loan Program (HECS-HELP), works by automatically repaying student debt through the tax system based on a graduate's ability to pay. While the Australian HECS-HELP can be quite complex and has some important caveats, the essential element is that students can opt to pay for PSE after they graduate rather than before by tying their payments to their after-graduation taxable income. The amount they pay back is dependent on the amount they earn, and the program is automatic (See, Houssard, Sastro & Hardy, 2010; The Higher Education Support Act, 2003; Chapman, 2005).

The question for our purposes is does this system affect the participation rates of underrepresented students, particularly those who are low income? A series of studies commissioned by the Australian government concluded that the HECS-HELP scheme did not deter the participation of low-income students in PSE, which was a concern given that the financial burden was shifted to students from the state (See, Smith, Ramm & Archbold, 1997; Andrews, 1998. See also Chapman & Nicholls, 2013). Over time there has been an overall increase in the participation in PSE. However, most studies that examined the HECS-HELP effect on low-income students have been unable to directly answer the question as to whether there has been an overall increase in participation by low-income students associated with HECS-HELP (See, Andrews, 1999; Houssard et al., 2010; Chapman & Ryan, 2002).

We do know, however, that as with savings vehicles and other early intervention programs, application processes and a lack of information about such programs can deter students who would benefit most from them. We can extrapolate that this would apply equally to targeted debt-reduction programs for low-income students. As Ontario already has a fairly generous repayment assistance program that is undersubscribed, making the system automatic rather than application-based would increase its ease and simplicity of use and encourage participation for students who might be debt adverse or those who may worry about their ability to repay their loans after graduation.

Early Intervention Programs

Another way of addressing the needs of traditionally underrepresented youth is through early intervention programs. These programs take as their starting point that access to postsecondary education and graduation from high school must be addressed early in the educational pathway and requires a comprehensive set of supports. Early intervention programs are an increasingly important part of the access to PSE landscape.

Early intervention programs are designed to help youth who might not otherwise graduate from high school or participate in postsecondary education get the resources, support and information they need to do so. Early intervention programs usually start in middle school or early high school, and contain a range of components including mentoring, tutoring, counselling, academic enrichment, parental involvement and scholarships (Cunningham, Redmond & Merisotis, 2003; Gandara & Bial, 1999; Perna, 2006).

Such programs vary a great deal. They have a long history in the US, the UK and Australia but are less common in Canada. Pathways to Education, one of the oldest and best-known Canadian programs, opened its first site in downtown Toronto in 2001. It currently has 20 sites across Canada and eight in Ontario. Other programs including Success Beyond Limits in the Jane-Finch area of Toronto, JumpStart in Kitchener Waterloo, and NYE WEH and Abacus/Grad Track in Hamilton have contributed to the growing popularity of community-based early intervention programs designed to serve disadvantaged and at-risk youth (for a more complete list of Ontario early intervention programs see Appendix).

Evaluations of early intervention programs that have been conducted, particularly in the United States, generally show a positive impact on high school completion and PSE participation.[4]

In Canada, an evaluation of the Regent Park Pathways to Education site found very positive effects on both high school graduation and PSE participation (Oreopoulos, Brown & Lavecchia, 2014); and the Ottawa site has shown positive effects on student engagement in their education pathways (Hart & Thibeault, 2019).

However, while there is evidence that providing a comprehensive set of supports to students who are disengaged or challenged can have an impact on the educational success of at-risk and disadvantaged youth, early intervention programs that offer these types of supports are resource intensive and limited in the number of students they can serve.

Pathways to Education Canada

Pathways to Education is one of Canada's most established and best-known student support programs. It is run by a charitable organization and provides student support services in low-income communities across Canada. Pathways was launched in 2001 in Toronto's Regent Park neighbourhood where the high school drop-out rate at the time was more than 50%. The program has since expanded to 20 locations in eight provinces and serves more than 5,000 students. (Pathways to Education, n.d.).

The program is open to all students in the catchment area in which it is offered, and provides students with after-school tutoring, mentoring, student-parent support workers and financial inducements such as free transit tokens. A study of the program conducted in 2014 found that participation in the Pathways program boosted the high school completion rate at the Regent Park site to 53% from 38%; and postsecondary enrolment rose to 59% from 43% (Oreopoulos et al., 2014). The cost of delivering the program was estimated to be $14,000 per student. Funding for the program is provided by the federal and provincial governments, and private donors.

[4] For a description of these programs and the challenges they face see Gaye & Fowler, 2011; Cave & Quint, 1990; Le, Mariano & Faxon-Mills, 2013; Avery, 2013; Edmunds, Bernstein, Unlu & Glennie, 2012; St. John, Musoba, Simmons, Chung, Schmit & Peng, 2004; Kahne & Bailey, 1999; Oreopoulos, Brown & Lavecchia, 2014; Coleman, Palmiter, Turner & Vile, 2012; Johnson, 1999.

In 2011, 478 neighbourhoods across Canada were considered low income according to Statistics Canada (Statistics Canada, 2016). These numbers aren't available by province, but since Ontario makes up 40% of the Canadian population, we can estimate that there are approximately 150 to 200 low-income neighbourhoods in the province. By comparison there are eight Pathways to Education sites in Ontario. Even by a conservative estimate, the number of students served by Pathways and other early intervention programs in the province is small compared to the need. Early intervention programs, valuable though they may be, are expensive and resource intensive and, as a result, limited in the number of students they can serve.

The Future to Discover program, a long-running research study conducted by the Social Research and Demonstration Corporation, promised high school students from low-income families in New Brunswick up to $8,000 in grants to go toward the cost of their postsecondary studies along with career planning and postsecondary information workshops. It found that the interventions, offered either separately or together, increased high school graduation rates and PSE enrolment among underrepresented groups (Ford et al., 2012). However, the interventions had less of an impact on PSE completion. The promise of financial aid boosted college completion but neither intervention had any noticeable effect on university completion.

This is borne out by research in the US that suggests that early intervention programs, especially those that provide a full spectrum of supports from mentoring to financial aid to academic supports, can be effective while the student is enrolled in the program and immediately afterward. However, the effects of the program decrease over time. For instance, an early intervention program that concludes at the end of Grade 12 may be successful

US College Promise Programs

College Promise is a US-wide initiative that features a financial promise made to participants, which can include up to four years of free postsecondary tuition and fees. There are 200 promise programs in more than 40 states, some run by community groups and others by the state. Program requirements and eligibility criteria vary, with some programs restricted to students in financial need. Some include mentoring, community service requirements and academic support. A national campaign was launched in 2015 to expand the program.

The Indiana program, officially known as the 21st Century Scholars Program, provides income-eligible students up to four years of free undergraduate tuition at any participating public university or college in the state. Students enrol in the program in Grade 7 or 8. They must sign and fulfil a scholar pledge and complete 12 requirements while in high school, including a visit to a college campus, a scholarship search and filing for financial aid. Scholars must also maintain a minimum grade point average and graduate with a high school diploma. The Indiana Commission for Higher Education reports that on-time graduation rates for 21st Century Scholars are improving and that scholars are more likely to graduate on time than other low-income students who don't participate in the program: Across all Indiana public two- and four-year colleges, almost 30% of scholars graduated on time in 2017 compared to 24% of other low-income students (Indiana Commission for Higher Education, 2018).

in getting students into PSE but has limited or no effect on graduation rates; similarly, an early intervention program in middle school may increase academic performance and ease the transition to high school but has little to no effect on high school graduation (Cave & Quint, 1990; Le et al., 2013; Edmunds et al., 2012; Johnson, 1999).

Still, early intervention programs are an extremely important part of the access to PSE landscape. They target resources and supports to those youth most likely to encounter barriers and challenges in graduating from high school and entering postsecondary. Paul Lingenfelter, the former president of the State Higher Education Executive Officers Association, has argued that youth who come from well-educated middle- and upper-middle-class families are born into a pathway to PSE; for youth who are not born into those families, early intervention programs artificially recreate those pathways (Lingenfelter, 2003).

While the evaluation and assessment of these programs is still relatively nascent, we know enough to have a sense of what about these programs is working: an ecosystem of comprehensive supports that meets the multiple needs of at-risk students; mentoring, counselling, role modeling and the participation of a consistent and reliable adult who can provide advice and guidance; timely and useful information about education pathways; financial supports for those who need it; and academic tutoring and expectations that support students in developing the study skills and academic credentials they need to succeed. The next step is to take these lessons and find ways of integrating these types of supports into the current system in a way that is accessible to all students who need them, without stigma or the creation of additional barriers.

Conclusion

High school is an important stepping-stone on the road to higher education. The high school graduation rate has increased significantly over the last 15 years and is now at record levels. This is clearly a welcome trend. However, a significant proportion of students continues to struggle to get through high school and obtain a postsecondary credential. It is unlikely that all high school students will go to PSE. Inevitably, some will choose alternate routes. But we need to ensure that it is in fact their choice and that all those who do want to pursue higher education have an opportunity to do so.

We must acknowledge that access to PSE starts very early in the educational pathway, and that the PSE system itself has limited capacity or mandate to affect equity of access. Rather, we should look to the role that the K–12 system plays in supporting equity of access to postsecondary and do a better job of measuring the effectiveness of existing programs. It is in high school, after all, where important decisions are made about whether to apply to postsecondary programs and course selections that may or may not lead there.

Recommendations

- End streaming in Grades 9 and 10

The OECD has long advised member countries that streaming early in high school tends to have an adverse effect on disadvantaged students. This is backed up by research from the TDSB and advocacy groups such as People for Education. There is no doubt that streaming has an adverse effect on students who are already facing challenges in their educational pathways. While ending streaming in the first two years of high school may be a challenge, it is far outweighed by the benefits. The TDSB has committed to ending streaming in Grade 9 and 10 by 2021. We recommend that the government require all school boards in Ontario to follow the TDSB lead.

- Make it easier to access PSE without completing high school

Why is high school a prerequisite for going to PSE? Clearly it is a signal of academic achievement and of the study skills required to transition to the next phase of study. For most students, this works. However, for some students graduating from high school presents a challenge. For older students who have decided to return to school or students challenged by location or circumstances in completing high school, there must be a better option than requiring them to complete high school. The existence of transition and bridging programs suggests that the PSE sector understands this. We recommend that government and institutions better fund and promote these programs so that prospective students are aware of them and can easily access them.

- Make enrolment in debt-repayment and savings plans automatic

Programs that are intended to support low-income students in paying back debt after they graduate and those intended to help low-income families save for postsecondary are not well-known or well-subscribed. Youth who have little knowledge of the PSE system, including first-generation students and new-immigrant students, are unlikely to be familiar with these programs, seek them out and apply for them. There is evidence from other jurisdictions that programs that automatically apply to low-income students have an impact on the participation of low-income and first-generation students in PSE. We recommend that federal and provincial governments make participation in the debt-repayment program and the Canada Learning Bond automatic.

- Measure outcomes, not inputs or expectations

The existence of programs is not enough. We need to know how they are being used and whether they do in fact increase access for the students they are intended to serve. While many of the programs that are currently in place have a solid research base, there is currently no way to know if they are serving and supporting the students who need them most. There does not appear to be any publicly available information on whether supports available to students in high school such as the Specialist High Skills Major, dual credit and co-op programs are creating successful pathways to PSE for at-risk Ontario youth. We have written elsewhere that it should be a requirement of every program that receives government funding that some portion of the operating grant funds, say 2% to 5%, be used to assess whether it is working as designed and meeting its intended outcomes (Weingarten, 2013). A good outcomes-based measurement framework can help program deliverers and funders adjust and rework elements that aren't working and amplify and share those things that are. A good outcomes-based measurement framework can ensure that resources are spent in a way that supports those students who are most in need of help in the most responsive and effective way possible. We recommend that the province measure the outcomes of student supports currently offered in Ontario high schools.

- Support an array of early intervention programs at the community level

Local communities and agencies such as community centres and health networks often have programs that support their most vulnerable youth. They are natural allies in providing early intervention programs for underserved youth. Pathways Regent Park was created in Regent Park to meet that neighbourhood's specific needs. The same is true of iGrad in York Region, Success Beyond Limits in Toronto, and NYE WEH in Hamilton. A community often knows its youth and has created supports to address their unique needs with partners in the region. We recommend government fund existing programs that have demonstrated success, help them scale up and be more effective; and identify communities that could benefit from new programming based on models that currently exist. Community-based early intervention programs are only one part of an equity of access ecosystem, but they are an important part that has found effective ways of targeting and supporting the most at-risk youth.

- More data is needed

We have argued elsewhere that it is a challenge to make effective and thoughtful policy without having a solid understanding of what the challenges are for students and how current policy and programs are affecting those challenges (Gallagher-Mackay, 2017; Deller, Kaufman & Tamburri, 2019). A significantly better, more comprehensive and timely data infrastructure will give us both things. It will allow us to track Ontario students through high school into PSE and identify in a timely way where students are struggling and what is helping them regain momentum. Other Canadian jurisdictions, including British Columbia, Alberta and the Maritime provinces, are much further ahead, as is the United States with its extensive and publicly available data from the National Center for Education Statistics. We have noted elsewhere that the data culture in Ontario is beginning to change, albeit slowly. Colleges and universities as well as provincial government ministries are expanding their use of the Ontario Education Number, an individual-identifying number that students are assigned at the start of their educational journey. But much more needs to be done (Gallagher-Mackay, 2017). We recommend that institutions and government continue to expand their use of the OEN and make the data available to researchers.

Hamilton Community Research Partnership

HEQCO has long advocated for the collection and sharing of better data that would allow researchers to track students throughout their educational journey, from elementary school to PSE and into the labour market. Ontario is short on such data compared to other provinces and jurisdictions. Access to a robust data set would allow researchers to investigate who is successfully making the transition from high school to postsecondary and who is not, what challenges they encounter along the way and how they fare once there — information that is crucial to improving access to postsecondary education for underrepresented students.

To promote better data sharing among institutions and answer some of these important questions, HEQCO has brought together school boards, postsecondary institutions and community groups in Hamilton to form the Hamilton Community Research Partnership. The partnership comprises the Hamilton-Wentworth District School Board, the Hamilton-Wentworth Catholic District School Board, Mohawk College, McMaster University and the Hamilton Community Foundation. The partners are working to merge and share student information.

The data will be anonymous and adhere to strict protocols that will protect students' privacy. It will allow for a longitudinal analysis of student pathways starting in Grade 9. The partners have identified three areas of study, including student pathways from high school to postsecondary, the role of high school numeracy skills on postsecondary success, and the predictors of high school graduation and postsecondary retention.

The research partnership is expected to shed new light on the determinants of high school completion and postsecondary participation, and inform future policy and program development. The pilot program is also expected to provide evidence of the value of data sharing, with the hope of expanding data-sharing partnerships to other jurisdictions and demonstrating the benefits of using the Ontario Education Number to conduct similar province-wide research.

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Appendix

Early Intervention Programs

In recent years many community-based support programs have sought to find ways to address the systemic barriers that at-risk youth face in the K–12 system, to boost student achievement and to encourage them to access PSE. Here we highlight some of them.

- **Pathways to Education** — One of Canada's most established and well-known student support programs is Pathways to Education. It is run by a charitable organization and provides student support services in low-income communities across Canada. It was launched in 2001 in Toronto's Regent Park neighbourhood where the high school drop-out rate at the time was more than 50%. The program is open to all students in the catchment area in which it is offered, and provides students with after-school tutoring, mentoring, student-parent support workers and financial inducements such as free transit tokens. A study of the program conducted in 2014 found that participation in the Pathways program boosted the high school completion rate at the Regent Park site to 53% from 38%; and postsecondary enrolment rose to 59% from 43% (Oreopoulos et al., 2014). The cost of delivering the program was estimated to be $14,000 per student. The program has since expanded to 20 locations in eight provinces and serves more than 5,000 students. (Pathways to Education, n.d.). Funding for the program is provided by the federal and provincial governments, and private donors.

- **JUMPStart to Higher Education** — JUMPStart is an early intervention program that targets Grade 7 and 8 students in the Waterloo Region. It was launched in 2013 by the Centre for Student Success at Wilfrid Laurier University and reaches about 3,000 students a year in 20 schools, largely in low-income areas. The program provides workshops and information sessions for students and their families about postsecondary pathways and funding, career options, and the importance of course selection in high school, particularly between applied and academic courses. In addition, JUMPStart includes a three-day residential program at Laurier for students in Grades 5 to 8, designed to provide students with exposure to university life and activities. During its four years of operation, the program has reached more than 5,000 students. Participant surveys show it has helped demystify PSE for participants and their families, and increase their knowledge about postsecondary pathways and the importance of course selection in high school.

- **Grad Track** — Grad Track is a pilot project launched in 2016 by the Hamilton Community Foundation and the Fairmount Foundation to improve high school graduation rates and access to postsecondary education by targeting students in their middle school years. The program is being piloted at two host schools in Hamilton involving 35 students who face multiple barriers

and challenges. The cornerstone of the program involves a learning coach who works with students from Grade 6 until they enter high school. The learning coach acts as a mentor and helps students explore educational and career options, and set goals for themselves. The students take part in summer camps, extracurricular activities, campus visits and other experiential learning opportunities.

- **Success Beyond Limits** — Success Beyond Limits is a youth-led mentorship program that serves high school students in Toronto's Jane and Finch community. The program, launched in 2010, consists of a summer program, a school-year program and a March Break program for about 100 Grade 8 students. The six-week summer program offers participants instruction in math, English, and social and life skills. It also includes extracurricular activities and opportunities for career exploration. Participants in the summer program receive a credit that counts toward their high school diploma. The program is led by about two dozen mentors, typically high school students who were once participants themselves.

- **Lakehead University Achievement Program** — The Achievement Program was founded in 2011 at Lakehead University to promote access to postsecondary to students facing socioeconomic challenges. The program is offered to students in Grades 4 to 12 and allows participants to earn financial credits by participating in academic and recreational programs at their schools, in the community and at Lakehead. The earned credits can then be applied toward tuition fees at Lakehead. The program also provides financial literacy and educational workshops, athletic mentors and academic tutors.

- **Native Youth Advancement with Education Hamilton (NYA WEH)** — NYA WEH is a support program for First Nations, Métis and Inuit students in elementary and secondary school in the Hamilton area. The initiative was started to address the high drop-out rate among the city's Indigenous youth. It provides academic support, employment services, cultural and recreational events, tutoring and guidance and a nutritional program. It also offers courses on Indigenous culture.

- **Raising the Grade** — Raising the Grade is an after-school program offered by the Boys and Girls Club of Canada, a non-profit agency, to high school students in 43 locations across Canada, including Ontario. The aim of the program is to promote academic engagement, and to raise high school completion and participation in postsecondary education. All students are eligible to participate in the program, which includes tutoring, mentoring, homework support and career exploration. An evaluation of the program conducted by the Social Research and Demonstration Corporation in 2017 found academically vulnerable students reported significant positive changes after one year of participation, including feeling more engaged at school and spending more time on homework.

- **DSBN Academy** — The District School Board of Niagara Academy opened its doors in 2011. The publicly funded school now serves about 450 students in Grades 6 to 12 from the 12 municipalities in the Niagara Region. The school is geared to students whose parents didn't attend postsecondary and aims to have all of its graduates enrol in a postsecondary program. It provides an extended school day and offers extracurricular and enrichment activities, tutoring, transportation and a breakfast program. The school offers only academic credits in Grades 9 and 10 and only university and college level courses in the upper high school years. In addition, parents of students must commit to 15 hours a year of volunteer time.

- **Africentric Alternative School** — The Toronto-based Africentric Alternative school opened in 2009 to address the high drop-out rate and achievement gaps affecting the city's Black students. The school offers a curriculum highlighting African-centred knowledge and a nutrition program. A research study conducted in 2015 by researcher Carl James found that the school's culture of high expectations and development of positive Black identity had a positive impact on students' self-confidence while noting that the school has also faced challenges, including frequent changes in the administration, under-resourcing and negative media attention. The school has more than 100 students in kindergarten to Grade 8.