

Redefining Access to Postsecondary Education

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Executive Summary

Ontario is best served — economically and socially — by a postsecondary education system that focuses on increasing opportunities for students who need it the most, and that measures the outcomes of the policies and programs that seek to do this. The government of Ontario is in a position to implement an outcomes-based funding model that can expand opportunities for Ontario youth to move successfully into and through the postsecondary sector and into the labour market, particularly those who may have been most disadvantaged in the past.

Access to postsecondary education has always been a dominant public policy goal in Ontario, and rightfully so. There are two ways that access has been defined: first, by how many spaces there are in the system to accommodate everyone who wants to attend, and second, by who gets in. The first definition is essentially a growth model; it focuses on increasing the capacity of the system to accommodate an increasing number of students who want to go. The second is an equity-of-access model that focuses on which students are — and which are not — going. It asks whether all Ontario youth have an equal opportunity to access and succeed in the postsecondary system.

Decades of research has shown that certain youth are underrepresented in PSE. First-generation students (those whose parents didn't complete postsecondary), low-income students, Indigenous students and students with disabilities are less likely to enrol in postsecondary education, and less likely to attain a PSE credential than their peers.

In Ontario, provincial governments have historically committed to a postsecondary access policy that drives enrolment growth. The current funding formula rewards institutions that enrol an increasing number of students. Government attempts to address equity of access have focused on expanding student financial assistance, capping tuition fees and targeting incremental funding to institutions to enable them to recruit and support students from historically underrepresented groups.

These policies have resulted in a dramatic increase in overall enrolment at Ontario's colleges and universities over the last two decades. Ontario is now a world leader in adult postsecondary attainment. The assumption inherent in these policies was that growth would also improve the equity of access. However, the evidence suggests that it has done little to achieve equitable access for those students who have been traditionally excluded from postsecondary and labour market opportunities.

The analysis presented in this paper suggests that it is time to declare victory on growth and focus more intently on ensuring that all Ontarians have an equal opportunity to access and succeed in Ontario's postsecondary system.

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Introduction

Education has the power to transform lives. It can lift individuals from poverty. It can provide them with the skills and knowledge necessary to find fulfilling careers that ensure their own success and that of society at large. And it can shape engaged, civic-minded citizens and thriving communities.

Providing individuals access to higher education has long been a priority of the Ontario government. One of the legislated mandates of the Higher Education Quality Council of Ontario (HEQCO) is to provide evidence-based advice to government on how to improve access.

Since HEQCO's inception in 2005, we have published extensively on issues related to postsecondary access, and we continue to work with the Ontario government along with the province's colleges, universities, school boards and community groups to evaluate programs that seek to increase the access and success of Ontario students.

We have argued elsewhere for a more outcomes-based approach to access, where resources are directed toward assessing the impact of access and retention policies and programs on student outcomes (Deller, 2017). We have also argued that we need a more fully developed data infrastructure in the province to allow us to track students' educational pathways by identifying when they are struggling and what supports help them achieve their chosen outcomes (Gallagher-Mackay, 2017). In short, we believe Ontario is best served — economically and socially — by a system that focuses on increasing opportunities for students who need it the most, and that measures the outcomes of the policies and programs that seek to do this. The government of Ontario is in a position to implement an outcomes-based funding model that can expand opportunities for Ontario youth to move successfully into and through the postsecondary sector and into the labour market, particularly those from historically disadvantaged groups.

This paper offers a framework for thinking more clearly about access to PSE and suggests the need for a renewed focus on making access to postsecondary education more equitable for all Ontarians. The questions addressed in this paper are:

- What is access?
- How should we define and measure access?
- What are the best practices for improving access?

What is Access?

Access to postsecondary education has always been a dominant public policy goal in Ontario, and rightfully so. There are two ways that access has been defined: first, by how many spaces there are in the system to accommodate everyone who wants to attend, and second, by who gets in. The first definition is essentially a growth model; it focuses on increasing the capacity of the system to accommodate an increasing number of students who want to go. The second is an equity-of-access model that focuses on which students are — and which are not — going. It asks whether all Ontario youth have an equal opportunity to access and succeed in the postsecondary system.

Decades of research has shown that certain youth are underrepresented in PSE. First-generation students (those whose parents didn't complete postsecondary), low-income students, Indigenous students and students with disabilities are less likely to participate in postsecondary education, and less likely to attain a PSE credential than their peers (Anisef et al., 2017; Drolet, 2005; Finnie, Childs & Wismer, 2011; Finnie & Mueller, 2008; Zhao, H., 2012).

The Growth Model

In Ontario, provincial governments have historically committed to a postsecondary access policy that drives enrolment growth. The current funding formula rewards institutions that enrol an increasing number of students. Government attempts to address equity of access have focused on expanding student financial assistance, capping tuition fees and targeting incremental funding to institutions to enable them to recruit and support students from historically underrepresented groups.

These policies have resulted in a dramatic increase in overall enrolment at Ontario's colleges and universities over the last two decades. In 2005, the Liberal government of the day, led by then Premier Dalton McGuinty, promised to permanently expand the postsecondary system by adding more than 100,000 new spaces in Ontario colleges and universities. The rate of youth applying to PSE subsequently rose by 24% from 275,000 students in 2004 to 340,000 in 2015. The increase in the number of applicants led to enrolment growth of about 31% from 555,000 in 2004 to 725,000 in 2015, an increase of 170,000 new students — well above the initial target.

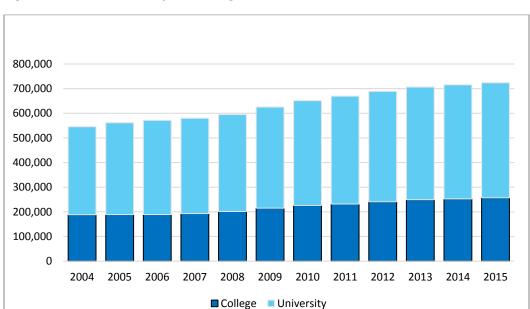


Figure 1 Ontario University and College Enrolments

Note: Enrolments are based on full-time equivalent students Source: Ministry of Training, Colleges and Universities

Ontario has come to be a leader in PSE participation and attainment in Canada and internationally. About 68% of Ontarians between the ages of 25 and 34 have a postsecondary credential, the highest of any province in Canada and among the highest of the major industrialized countries.

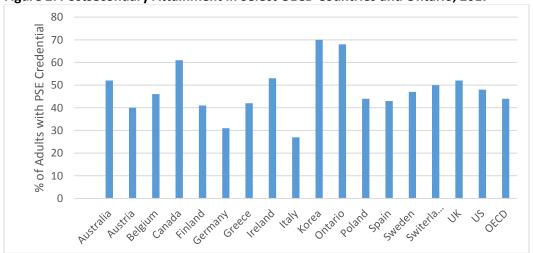


Figure 2: Postsecondary Attainment in Select OECD Countries and Ontario, 2017

Note: Among 25–34 year olds

Source: OECD (2018)

Effects of Enrolment Growth on Access

The growth model has indeed increased the total number of students in the province's postsecondary system and has made Ontario a leader in PSE attainment. However, the growth model has also given rise to significant challenges. Changing provincial demographics, which show a decline in the number of domestic PSE-bound students, reveal that the growth strategy may no longer result in the increasing revenues institutions require to operate (Weingarten, Kaufman, Jonker & Hicks, 2018). In addition, the extreme and rapid growth in enrolment, which was not accompanied by a commensurate increase in the number of faculty and other resources, has led to suggestions that the quality of the student experience has diminished.

And, perhaps most significant, while it was assumed that growth would also address the equity problem by reducing the participation gap between advantaged and disadvantaged students seeking access to postsecondary education, there is scant evidence that the model has achieved this.

Neither has the growth model directly addressed retention and graduation rates. Under this model, funding is focused solely on students' entry into postsecondary, with little thought given to graduation. As long as students remain enrolled in a college or university full time, they remain fully funded. There is no funding reward for ensuring that students successfully graduate or that they do so in a timely manner.

We are short on data that allows us to track students after high school and to analyze the choices they make (Gallagher-Mackay, 2017). The pockets of data we do have suggest that the trend lines for students from traditionally underrepresented backgrounds have not changed significantly over the last two decades despite the overall increase in enrolment growth, with the possible exception of a small, recent uptick in low-income students participating in university (Brown, Parekh & Gallagher-Mackay, 2018; Chatoor, MacKay & Hudak, forthcoming; Drolet, 2005; Finnie, Childs & Wismer, 2011; Finnie & Mueller, 2008; Frenette, 2017; Robson, Anisef, Brown & George, 2018; Zhao, 2012).

Parental education remains a major determinant of PSE participation. High school students who come from a family where neither parent completed PSE are 33 percentage points less likely to complete PSE themselves than their peers whose parents have PSE credentials. When they do participate, first-generation youth tend to pursue two-year college programs rather than four-year university degrees (Chatoor, MacKay & Hudak, forthcoming; Finnie, Childs & Wismer, 2011; Finnie & Muller, 2008; Zhao, 2012).

100 90 89 % of Adults with PSE Credential 80 70 60 50 40 30 20 10 0 Neither Parent has PSE Only Mother has PSE Only Father has PSE Both Parents have PSE

Figure 3: PSE Attainment by Parental Education

Source: Chatoor, MacKay & Hudak (forthcoming)

We also know that family income is an important driver of PSE participation. Students from families in the lower income quintiles are less likely to pursue higher education than their peers from high-income families. Research shows that family income is strongly correlated with parental education (Frenette, 2007).

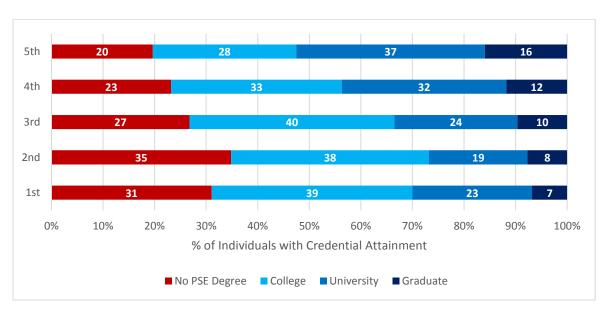
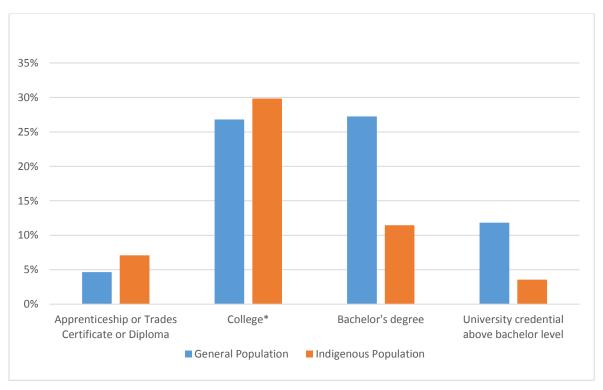


Figure 4: Postsecondary Credential Completed by Family Income Quintile

Source: Longitudinal and International Study of Adults (2014)

Data from the 2016 census indicates that the PSE attainment rate for Indigenous students in Ontario is 26 percentage points below that of the general population. Those Indigenous students who do go to PSE are more likely to enrol in college, and trades and apprenticeship programs.

Figure 5 Postsecondary Attainment Rates among 25–34 Year Olds in Ontario, Indigenous and General Populations



^{*}Includes university credential below degree Source: Statistics Canada (2016)

We also know that PSE considerations start early in a student's educational pathway and that some students struggle more than others with the challenges and barriers along the way. Chatoor, MacKay and Hudak (forthcoming) found that students whose parents had not completed PSE are twice as likely to drop out of high school as their counterparts whose parents had PSE credentials.

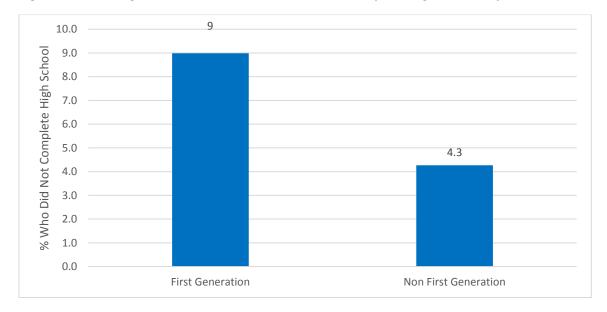


Figure 6: Percentage of 16-24 Year Olds Who Did Not Complete High School, by Parental Education

Source: Chatoor, MacKay & Hudak (forthcoming)

On the whole, the evidence suggests that an open-door model is ineffective in targeting underrepresented students, even when it is coupled with a generous financial aid system.

The Role of Financial Aid

Governments have promoted access primarily through student financial assistance, as well as other mechanisms such as the federal Canada Education Savings Grant and the Canada Learning Bond. These programs are intended to encourage families to start saving for postsecondary education early in a child's life.

At the provincial level, the 2016 reforms to the Ontario Student Assistance Program (OSAP) that made tuition free for low-income students were also based on the premise of promoting access through financial assistance. Institutions have also played a role in promoting access through scholarships and bursaries.

The intention of all these programs is to reduce financial barriers and make PSE more affordable for students. If young people can overcome the challenges and barriers they may face along their educational pathway and get to the academic finish line, there will be a space waiting for them regardless of their ability to pay for it. Despite these programs, a significant gap still exists in the postsecondary participation and attainment rates of youth from underrepresented populations. Why is this so? Because affordability is only one factor influencing students' decisions. According to the 2018 annual report of the Auditor General of Ontario, the changes made to OSAP in 2016 resulted in an increase in enrolment of just 1% for universities and 2% for colleges even though the number of OSAP

grant recipients rose by 25%, indicating that a large portion of OSAP recipients were already attending university or college. (Auditor General of Ontario, 2018).

Non-financial Factors Affecting Access

Years of research has taught us that non-financial variables also play an important role in decisions about who attends, and that these decisions are often made well before the end of high school. These factors can be linked to systemic barriers and have been shown to affect both grades and interest (Perna & Swail, 2002).

We know that low-income students begin to show a literacy gap compared to middle- and high-income students as early as Grade 3, and that the gap grows over time, impacting grades and academic ability later in life (see Davies & Aurini, 2012; Davies, Aurini, Milne & Jean-Pierre, 2015; Davies, Maldonado & Zarifa, 2014; Heckman, 2008; Willms, 2002). We know that students from racialized backgrounds, especially boys, are more likely to be expelled and suspended while in high school, deemed by teachers to have fewer "soft" skills, and streamed into vocational programs — all factors that are highly determinant of who goes to postsecondary (Parekh, 2018; Robson, Brown & Anisef, 2014). We know that first-generation students, LGBTQ students, Indigenous students and students with disabilities are much more likely to decide not to pursue higher education early in middle and high school, believing that postsecondary is simply "not for them" (see Berger, Motte & Parkin, 2009; Blanco, 2009; Chatoor, MacKay & Hudak, forthcoming; Finnie and Mueller, 2008; Frenette, 2017; Perna & Swail, 2002).

We know that youth from high-income families tend to outperform those from low-income families on standardized tests and report higher overall marks (Frenette, 2007). And we know that students in specialized arts, gifted and French immersion programs are disproportionately white and wealthy while students in special ed. and trades programs are disproportionately racialized and low income (Parekh & Gaztambide-Fernández, 2017).

In other words, the pathway to PSE starts early in the life of a student and there are multiple points of possible disengagement along the way, exacerbated by systemic barriers and challenges.

Considerations for Improving Access

It is clear from demographic trends that continuing to open the doors to PSE ever wider is not sustainable for institutions and governments. Nor is it an optimal way of supporting those students who face systemic challenges to participating and succeeding in PSE. The continued underrepresentation of certain groups suggests a new approach to access is needed. A true equity of access policy must target and support those students who have the most difficulty in accessing PSE, and give them the support they need to fully participate and succeed in PSE and, eventually, the labour market.

It is equally important to address the multiple challenges and barriers along the academic pathway that make running a race for some students a relatively straight line and for others an obstacle course.

We would like to conclude by offering a few considerations for moving forward with a new equity-of-access model:

1. Help those who need it most

In times of limited resources, we can no longer afford an across-the-board expansion of postsecondary spaces. In any case, demographic challenges in parts of the province make this an unrealistic goal for many institutions. The evidence we have to date suggests that this type of growth model hasn't achieved true equity of access. The time has come to focus our limited resources on helping those students who have been shut out of PSE largely because of socioeconomic and other circumstances beyond their control. We know that universal programs that target all students, such as tuition tax credits, are expensive and tend to support those students who are least in need of help.

2. Address the relationship between access and quality

An effective access policy must address the relationship between access and quality. In previous HEQCO publications, we have defined a quality education as the skills and competencies that students graduate with (Weingarten, 2017; Weingarten, 2018). We are suggesting here that quality is also defined by the economic and social mobility that results from a postsecondary education. In other words, what is the value of PSE to students both in regard to what they can do, and in terms of their ability to participate in the labour market? This is the true value of a high-quality educational experience.

This cannot be achieved by increasing the number of postsecondary spaces. If a university, college or apprenticeship program does not provide all students with an equal opportunity to enter the labour market with the skills and competencies required to succeed, then it cannot be considered a valuable or high-quality experience. To be clear, a postsecondary education needs to add value to the lives of all students, and — perhaps especially — to those students who are most in need of it.

3. Keep in mind the importance of the K-12 system

Equity-of-access considerations start early in the life of a student, some would argue as early as Grade 3 or even kindergarten. Access programs that begin at the point of entry to postsecondary or just prior may make life easier for some students and may have some impact on retention and graduation rates, but they do not have the profound effect on long-term PSE access that comes from interventions that start earlier. An effective access policy must address both what PSE institutions are responsible for, such as retention and graduation, as well as how the K-12 sector — in partnership with the PSE sector — can become more active and effective in supporting long-term educational opportunities.

We must think carefully about what we consider to be the responsibility of the PSE sector. How much impact can universities and colleges have on decisions made in middle and high school, and perhaps earlier?

4. Measure and fund outcomes

HEQCO has long argued in favour of an outcomes-based funding model for postsecondary institutions. We would argue that the same is true for access policies. Government funding should support access and retention programs that articulate clear goals and provide evidence of success. Participation in PSE in and of itself should not be the goal. The goal should be the acquisition of a quality postsecondary education — and should be funded as such.

Ontario is in the early days of thinking about how to transition to an outcomes-based funding model. Options include funding institutions based on graduation rates rather than enrolment — an approach that could be implemented immediately — and extend to much more nuanced and representative measures that track students through their postsecondary journey and into the workforce.

The province spends almost \$200 million a year on envelope funding for institutions to improve access. This money is used at the institutional level to support students with disabilities, first-generation students and Indigenous students, among others. But there is little assessment or evaluation conducted to measure the impact of these programs and policies on access, retention and graduation. Without such evaluation, we may not only be wasting taxpayer dollars, we may also be creating ineffective policies and programs that do not serve students well. In fact, some research suggests that many student support services are used primarily by those students who need them the least (see for instance Dietsche, 2012).

5. Data, please

Ontario is short on longitudinal data that tracks students from high school to PSE and into the labour market. Other Canadian jurisdictions, including British Columbia, Alberta and the Maritime provinces, are much further ahead, as is the United States with its extensive and publically available data from the National Center for Education Statistics. The data culture in Ontario is beginning to change, albeit slowly, with the use of the Ontario Education Number (OEN) by colleges and universities. Students in the province are assigned an OEN, an individual identifying number, at the start of their educational journey. That number travels with them until they enter PSE. The K-12 sector and the PSE system can link students' OENs to additional information. The result is a powerful tool that, if made available, would allow us to track students from the time they enter primary school until they enter the workforce; would tell us much more than we know currently about underrepresented groups; and would give us the means to implement true evidence-based policies that target these groups.

New project-based data sets will also help shed light on the issue of access. In late 2018, Statistics Canada made available the new Education and Labour Market Longitudinal Platform (ELMLP) data set to researchers. Among other things, the data set will allow better assessment of graduates' labour market outcomes across disciplines.

If we are to create programs and policies that truly support students who are struggling in their educational pathway, then we must know far more about those pathways and about the efficacy of the policies and programs intended to support them. Using tools like the OEN and the ELMLP, we can measure how and whether a student's postsecondary education affected their economic and labour market outcomes.

Conclusion

Ontario has achieved a great deal for which it can be proud. Enrolment at the province's colleges and universities has increased dramatically over the past two decades. Ontario is a world leader in adult postsecondary attainment. Nevertheless, this strategy has done little to achieve true equity of access. It has done little to help those students who continue to be excluded from postsecondary and labour market opportunities. Let's declare victory on growth, and now focus more intently on ensuring that all Ontarians have an equal opportunity to access and succeed in the province's postsecondary system. Let's ensure that the system acts as a lever that lifts all students toward a more prosperous and fulfilling future. The long-term prosperity and competitiveness of the province will depend on it.

For our part, HEQCO has identified a series of questions to which we seek better answers. We plan to begin with a series of papers that will tell us more about low-income and first-generation students in Ontario and their current pathways through K-12, into PSE and ultimately the labour market. Are we closing the opportunity gap for these students? Have two decades of policies and programs aimed at low-income and first-generation students made a difference? And do low-income and first-generation students experience the same economic lift from PSE as their counterparts? In other words, is postsecondary education worth it for everyone? This series of research papers will be followed by a capstone paper outlining what we have learned, how it can help us think more clearly about equity of access in the Ontario postsecondary system, and the next steps for further research and policy development.

References

- Anisef, P., Robson, K., Maier, R. & Brown R. S. (2017). Food Insecurity and Educational Outcomes: A Focus on TDSB Students. Toronto: Higher Education Quality Council of Ontario, 2017. http://www.heqco.ca/SiteCollectionDocuments/Formatted_Impact%20of%20Food%20Insecurity_FINAL.pdf
- Auditor General of Ontario. (2018). Annual Report. http://www.auditor.on.ca/en/content/annualreports/arbyyear/ar2018.html
- Berger, J., Motte, A. & Parkin, A. (2009). The Price of Knowledge: Access and Student Finance in Canada. Montreal: Canada Millennium Scholarship Foundation.

 http://www.yorku.ca/pathways/literature/Access/The%20Price%20of%20Knowledge%202009.p
 df
- Blanco, C. D. (2009). State and Community-based Promise Programs: Early Commitments of Financial Assistance for College. *Pathways to College Network*.
- Brown, R., Parekh, G. & Gallagher-Mackay, K. (2018). *Getting Through Secondary School: The Example of Mathematics in Recent TDSB Grade 9 Cohorts* [PowerPoint Presentation]. Proceedings from Higher Education Quality Council of Ontario Conference 2018: *Access in Practice*. Toronto: HEQCO
- Chatoor, K., MacKay, E. & Hudak, L. (Forthcoming). Parental Education and Postsecondary Attainment: Does the Apple Fall Far from the Tree? Toronto: Higher Education Quality Council of Ontario.
- Davies, S., Aurini, J., Milne, E. & Jean-Pierre, J. (2015). Les effets des programmes d'été de littératie : Les théories d'opportunités d'apprentissage et les élèves « non-traditionnels » dans les écoles ontariennes francophones. [The Effects of Summer Literacy Programs: Learning Opportunity Theory and "Non-Traditional" Students in Ontario French Language Schools]. *Canadian Journal of Sociology 40*(2), 189–222.
- Davies, S., Maldonado, V. & Zarifa, D. (2014). Effectively Maintaining Inequality in Toronto: Predicting University Destinations of Toronto District School Board Graduates. *Canadian Review of Sociology* 51(1), 22–53.
- Davies, S. & Aurini, J. (2013). Summer Learning Inequality in Ontario. *Canadian Public Policy 39*(2), 287–307.
- Deller, F. (2017, November 28). A Better Way to Protect Students. *It's Not* Academic. Higher Education Quality Council of Ontario. http://blog-en.heqco.ca/2017/11/fiona-deller-a-better-way-to-help-students-who-need-it-most/
- Dietsche, P. (2012). Use of Campus Support Services by Ontario College Students. *Canadian Journal of Higher Education 42*(3), 65–92.

- Drolet, M. (2005). Participation in Postsecondary Education in Canada: Has the Role of Parental Income and Education Changed over the 1990s? Ottawa: Statistics Canada.
- Finnie, R., Childs, S. & Wismer, A. (2011). Underrepresented Groups in Postsecondary Education in Ontario: Evidence from the Youth in Transition Survey. Toronto: Higher Education Quality Council of Ontario. http://www.heqco.ca/SiteCollectionDocuments/UnderRepdGroupsENG.pdf
- Finnie, R., & Mueller, R. E. (2008). The Backgrounds of Canadian Youth and Access to Postsecondary Education: New Evidence from the Youth in Transition Survey. In R. Finnie, R. E. Mueller, A. Sweetman & A. Usher (Eds.) *Who Goes, Who Stays? What Matters?* (79–107). Kingston: McGill-Queen's University Press and School of Policy Studies, Queen's University.
- Frenette, M. (2007). Why Are Youth from Lower-income Families Less Likely to Attend University? Evidence from Academic Abilities, Parental Influences and Financial Constraints. Ottawa: Statistics Canada. https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2007295-eng.htm
- Frenette, M. (2017). Postsecondary Enrolment by Parental Income: Recent National and Provincial Trends. Ottawa: Statistics Canada. https://www150.statcan.gc.ca/n1/pub/11-626-x/
- Gallagher-Mackay, K. (2017). Data Infrastructure for Studying Equity of Access to Postsecondary Education in Ontario. Toronto: Higher Education Quality Council of Ontario. http://www.heqco.ca/SiteCollectionDocuments/FINAL%20Data%20Infrastructure.pdf
- Heckman, J. J. (2008). Schools, Skills and Synapses. Economic Inquiry 46(3), 289–324.
- Organization for Economic Co-operation and Development. (2018). Education at a Glance. https://nces.ed.gov/surveys/annualreports/oecd/tables.asp
- Parekh, G. & Gaztambide-Fernández, R. (2017). The More Things Change: Durable Inequalities and New Forms of Segregation in Canadian Public Schools. In W. Pink & G. Noblit (Eds.) *Second International Handbook of Urban Education*. (809–831). Springer.
- Parekh, G. (2018). *The Dilemmas and Consequences in Assessing Students' Learning Skills*. [PowerPoint Presentation] Proceedings from Higher Education Quality Council of Ontario Conference 2018: *Access in Practice*. Toronto: HEQCO.
- Perna, L. W. & Swail, W. (2002). Pre-college Outreach Programs: A National Perspective. In W. G. Tierney & L. S. Hagedorn (Eds.). *Increasing Access to College: Extending Possibilities for All Students* (15–34). Albany: SUNY Press.
- Robson, K., Brown, R. S. & Anisef, P. (2014). Identifying the Complexity of Barriers Faced by Marginalized Youth in Transition to Postsecondary Education in Ontario.

 https://gatewaycities.mcmaster.ca/publications/publication-documents/robson-brown-ansifef-2015.pdf

- Robson, K., Anisef, P., Brown, R. S. & George, R. C. (2018). Underrepresented Students and the Transition to Postsecondary Education: Comparing Two Toronto Cohorts. *Canadian Journal of Higher Education 48*(1), 39–59.
- Statistics Canada. (2016). Census of the Population. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm
- Weingarten, H. (2017). What is Academic Quality? Higher Education Quality Council of Ontario. http://blog-en.heqco.ca/2017/03/harvey-p-weingarten-what-is-academic-quality/
- Weingarten, H. (2018). Introduction. In F. Deller, J. Pichette & E. K. Watkins (Eds.). *Driving Academic Quality: Lessons from Ontario's Skills Assessment Projects* (9–12). Toronto: Higher Education Quality Council of Ontario.
- Weingarten, H., Kaufman, A., Jonker, L. & Hicks, M. (2018). The Sustainability of the Ontario Public Postsecondary System: Putting Together the Pieces of the Puzzle. Toronto: Higher Education Quality Council of Ontario.

 http://www.hegco.ca/SiteCollectionDocuments/Formatted%20Capstone%20paper.pdf
- Willms, J. D. (2002). *Vulnerable Children: Findings from Canada's National Longitudinal Survey of Children and Youth*. Edmonton: University of Alberta Press.
- Zhao, H. (2012). Postsecondary Participation of Underrepresented Groups in Ontario: Evidence from the SLID Data. Toronto: Higher Education Quality Council of Ontario.

 http://www.heqco.ca/SiteCollectionDocuments/HEQCO%20SLID%20Eng.pdf