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Post-secondary education (PSE) is considered to be increasingly essential in today's fast-paced knowledge economy yet some students with the potential to succeed experience barriers to participation.

Continued globalization and advanced skill requirements are creating the need for a highly educated workforce. Over the past decade employment in Canada has grown by 43 per cent for those with post-secondary qualifications, while jobs for people who have a high school diploma or less have declined significantly. Post-secondary graduates not only have more employment prospects but also attain higher wages than those who have completed only high school (OECD, 2013; Frenette 2014). PSE is also associated with a wide range of positive social benefits. People who attend post-secondary institutions are more likely to have higher levels of life satisfaction, sustain a healthy lifestyle, and be actively involved in their community (Canadian Council on Learning 2009).

In a recent survey, 97 per cent of Canadian parents indicated that they hoped their child would pursue post-secondary education (Council of Ministers of

Education 2013). This aspiration will prove true for a large number of young people as Canada is recognized as having some of the highest post-secondary attendance rates in the world. However there is still a significant number of youth that will decide to drop out of school, or choose not to continue after receiving their high school diploma. This has been the case for many in Niagara where 41 per cent of the population between the ages of 25 and 64—that's more than 92,500 people—has no form of post-secondary credential. This percentage is significantly higher than the provincial and national rates (Statistics Canada 2011). Additionally, there are a notably low number of individuals who have attained university qualifications in the region.

Given the value of post-secondary attendance, what is happening? Why isn't more of the region's population making the choice to attend post-secondary education? This policy brief is intended to encourage further dialogue on access to PSE in Niagara. Building upon data from a qualitative research study, it explores how some people in Niagara perceive the challenges and barriers to choosing post-secondary education.

Percentage of adults (aged 25–64) by highest level of educational achievement in Niagara Region

	Niagara	Ontario	Canada
High school diploma or less	41%	35%	36%
Apprenticeship or Trades certificate	10%	8%	12%
College diploma	27%	24%	21%
University degree: bachelor's and above	18%	29%	26%

Source: Statistics Canada, Census 2011 data. A 26–29 per cent global non-response rate. Also note that University below Bachelors has been omitted from the statistics as Census Canada has expressed caution in using these numbers.

Executive Summary

Post-secondary education is associated with many positive outcomes for individuals, communities, and nations. Ensuring that all citizens have equal opportunity to pursue post-secondary education is vital to Niagara's future. Yet in this region 41 per cent of the population between the ages of 25 and 64 do not have a post-secondary education; a number that is significantly higher than both the provincial and national averages. Additionally, Niagara has a much lower rate of university participation than the provincial and national average. This policy paper outlines a research project designed to explore the beliefs about post-secondary education that begin early in a young person's life. Through a systematic selection process, individuals associated with under-represented groups were invited to participate. During interviews and focus groups, the participants were asked to talk about their perceptions of post-secondary education and their beliefs about the barriers that young people face. The findings allowed a deeper look at some of the variables that can potentially determine the choices of students in Niagara.

Niagara's economic development plans focus on attracting value-added and knowledge-based industries to our region (Niagara Economic Development 2013). Yet concerns have been expressed regarding our ability to meet the needs of these industries if an appropriately skilled population is not available (Niagara Workforce Planning Board 2014). It is clear that ensuring all citizens have equal opportunity for lifelong education is vital to the well-being of our community and the future of Niagara. It is therefore important to better understand the root causes of the challenges individuals face. A wide body of research has shown that post-secondary participation is more complicated than simply wanting to go. The decision to attend higher education is affected by a complex set of factors and is influenced by certain demographics. Cost is a common reason for not continuing to PSE, as is preparation for school, motivation, and parental influence. There are segments of the population who have been found to be less likely to pursue post-secondary education. These under-represented groups include individuals: having parents with no PSE, coming from a lower income family, living in a rural area, identifying as Aboriginal, or having a disability (among others).

Recent research has identified parental education as the single most important determinant of whether a young person will participate in post-secondary education (Finnie, Childs, & Wismer 2011). Higher levels of parental education tend to predict a child's own post-secondary attendance; this is especially true with university. Whereas if a student's family has no history of PSE he or she will be more likely to choose a non-university program, or to not pursue education at all after high school (Finnie, Childs, & Wismer 2011; Norrie & Zhao 2011). According to the last census data, a high number of adults in Niagara have not attended PSE, and of those who have continued, more have chosen to attend college than university. This self-perpetuating cycle is concerning for the future of Niagara.

Post-secondary education is not the right choice for everyone. However, our lower-than-average statistics suggest that some individuals with potential are being left out, or are not seeing all choices as being equally open to them. It is essential, then, to better understand any systemic barriers that may be affecting their PSE decisions and pathways. More research on the subtle beliefs surrounding PSE; how people think, understand, and talk about barriers to post-secondary has been called for by researchers (Finnie 2012).

The research project outlined in this policy paper was designed to explore beliefs about post-secondary education that begin early in a young person's life. Through a systematic selection process, individuals associated with under-represented groups were invited to participate in the project. The final sample used for the study included 28 citizens of Niagara (six service and educational providers, nine parents, and 13 youth) who engaged in detailed conversations during interviews and focus groups. The participants were asked to talk about their perceptions of post-secondary education, the factors involved in making decisions, and the barriers young people face. A variety of experiences were described and the following themes stood out as being shared among participants: belonging and engagement, aspirations and goals, course selection, inaccurate or incomplete information, and bias. These themes will be discussed next, using quotes from the interviews in order to illustrate points made in the analyses.

Belonging and Engagement

Positive social relationships play a very important role in students' school persistence and success (Cemalcilar 2010; Goodenow 1993; Osterman 2000). Studies consistently show that students who experience a sense of belonging are more engaged in classroom activities, more motivated, more dedicated to school, experience higher self-esteem, and have greater expectations of meeting their goals (Osterman 2000). On the other hand, students who feel alienated from others describe having greater feelings of anxiety, frustration, and sadness. This, understandably, has been shown to affect their behavior, academic performance, and feelings of disconnection from school (Furrer & Skinner 2003; Becker & Luthar 2002).

The participants involved in this research elaborated on the different ways that young people can feel isolated, or lack an experience of belonging. For some students, pedagogical or cultural barriers can create a feeling of being 'different'. One Aboriginal participant talked about some of the preferred methods of learning within his culture:

As a child most people in the native cultures will tell you stories. Some story lessons last for days. It is important to know that in a culture like Aboriginal culture you learn through stories and through observation.

Participants in this project also talked about how young people can feel different or isolated for many reasons beyond culture, including social and economic ones. Two parents elaborated:

If they share learning challenges ... there is a comfort level when they are together. Because they are not ... they are not going to judge each other. And it is a level of support that they just don't get with other people.

He is always helping me, "Did you pay the bills mom, did you do this or that." Even if I have to move he says, "That's OK mom, that's OK." But he can't have conversations like that with kids in his class because they have no idea of what we face. ... if he talks to kids at school he can't tell them these things because they don't experience that, they can't relate. They just know about computers; how to play these games.

Some participants shared stories about how academic ability can create divisions. This parent, and a young person, spoke on the topic.

He doesn't care. He'll just do odd jobs he figures ... because he knows he has a problem. He just is centered on the fact that he is struggling and knows that if you are struggling you are not going to go very far, but if you are not struggling, you will fly through.



For me there was always a lot of prejudice against going to college, even though all the teachers encouraged it as a different way of learning, it was as if all the cool kids were going to university. Like the smart kids would talk about going to university and then there was the other side, the kids who didn't do their homework, they would talk about maybe going to college.

Many of the participants spoke directly about the importance of belonging and acceptance as a basis for enjoying school and laying the foundation for post-secondary aspirations.

Some kids just are happy all the way through school and they feel belonging all the way through ... but that is just a small minority. Most kids coming into schools don't feel that way so easily.

If every school could afford to pay for somebody to stand in the hallway and just say hello to everybody and get Mom and Dad connected to their school, specifically for those students that may be struggling—behavioral or not—everybody would have good results.

I don't really think it's core programming that encourages students to go on to post-secondary, I think it's what each school does to make sure that the children in their community feel a part of that school, in whatever way that may be.



Personal, social, economic, and cultural factors can impact students' feelings of belonging, and also their self-perception, starting at a young age. If students feel excluded, or less worthy than their peers, it is likely to negatively affect their academic identity, motivation, and aspirations for further education. Youth who have a strong sense of belonging, feel competent, and have a positive educational experience in their early school years are more liable to want to continue on to post-secondary (Lambert, Zeman, Allen & Bussiere 2004).

Aspirations and Goals

Research has found evidence that clear occupational aspirations positively affect students' engagement and persistence in their studies (Berger, Motte & Parkin 2007; Frenette 2009; Grayson & Grayson 2003). Career uncertainty has been identified as a principal reason that young people decide not to apply to PSE (King et. al. 2009). It has also been found that students' thoughts on the relevance of education to the jobs that interest them has a strong influence on what level of education they aspire to (Berger, Motte & Parkin 2007; Grayson & Grayson 2003).

Many of the participants in this project spoke about how feeling a lack of clarity surrounding career options affects the way they think about post-secondary education. One service provider participant said:

It's hard when you are dealing with poverty because it's a very small percentage of the population that's actually able to break free from that. When you're in that family cycle and that's all you've seen ... it takes a lot to be able to make you believe that you can do more. That's all that you've seen and that's your expectation of where your life is headed as well, for a lot of the clients that's what we see anyway. I'm not really sure how we would resolve that.

Others talked about how individuals can feel limited by their background and wonder what options, roles, and careers are available to 'someone like them'. This parent, and this service provider, explained:

He actually really started to notice that he was different from the other kids at school and realized that his learning was different so he wanted to know ... what do kids that have the same problem that I do turn out to be when they are adults? So and I just basically explained to him well it depends what they were interested in. I said just because you have a learning disability doesn't mean you can't be what you want to be.

That's the other piece too—getting kids to believe in themselves to do that higher piece ... this one girl was going to do Early Childhood Education at college because she thought that's all she could do and afford. We worked it out with her and she went and did kinesiology at the university and did very well. She is going on to do teachers' college I think, so that perceptual barrier too is that confidence. How do you instill that in kids?

Some participants perceived their geographical location as a limit to their future prospects. They talked about how there are not the same employment possibilities in Niagara that there used to be. A few discussed how there were only limited roles to aspire to in the region. A service provider noted:

In this region, in certain areas, there are not a lot of people who've done anything else but work in a factory or work in a restaurant or in a hotel. Like, the kid's grandfather worked in a factory, and their father worked there, and now the job is not there. So that's the other piece that we're facing a lot with kids—what do I do? So when the kids aren't exposed to a person who has done other things, that's the other piece too.

In line with this theme, a number of the youth participants in this project indicated that they, or their friends, just didn't know what they wanted to do and weren't sure how they could figure it out. The youth focus group had the following two discussions:

*Participant A: I don't know what I want to be yet.
Interviewer: And that often happens. How do you think you might be able to decide what you want to do after school?*

Participant A: I think I just need to figure out my interests.

Interviewer: Do you have any ideas about how you might do that?

Participant A: I think it will just happen.

Participant B: Actually, at my high school the majority of kids stayed back. It is only maybe 10 per cent that went on to other schooling.

Interviewer: Oh?

Participant C: Quite a few stayed back at mine as well. Just because I think most of them ... they just didn't know what they wanted to do.

Participant D: A lot of the people I know; they went to university right after for "General" because they didn't know what they wanted. Then second year they decided not to go back because they still hadn't made up their mind and it was a



waste of money. I have a lot of friends now taking a year off trying to figure out what they want to do. They are probably not going to go back because no one knows what they want to do really.

Social, geographical, and economic factors can affect how students think about the future options available to them. In instances where students may appear to be unmotivated, a variety of complex and interdependent external factors may be creating barriers. When young people consider their future career possibilities to be limited, or can't even imagine a meaningful role for themselves in the future, it stands to reason that they might not see the relevance of extending effort in school or preparing for post-secondary education.

Course Selection

Students who start secondary school taking academic courses are more likely to complete their high school diploma than those taking applied courses (King et al. 2003). In Grade 9, students must choose between academic or applied classes (in some cases locally developed or open courses are also available). These separate course designations are intended to best meet students' interests and learning styles. Each option should equally lead to high school completion; however this is not actually the case. Research has indicated that students who take applied courses in Grade 9 are less likely to graduate within five years and less likely to go on to post-secondary education (People for Education 2014; King et. al. 2009).

Although students are permitted to move between options, studies have found that once a decision has been made to take a number of applied courses in Grade 9, most students will not choose academic or university preparation courses later on in their education (People for Education 2014).

The participants in this research spoke very strongly about the challenges inherent in being asked to select between academic or applied courses for high school at a young age. These three participants captured the sentiments expressed by many in the interviews:

A lot of people I knew in grade 8 ... if they were sort of ok in grade 8, not that great maybe ... like 70s, they would have gone to applied level. Not because they wanted to go to applied particularly, but just because they thought for sure they couldn't do academic.

They should keep students more informed, and even let them know that when they pick academic or applied it is sort of streaming for different jobs. A lot of students don't know that and they think "I am not capable of this course so I am just going to take the easier one" and they get through it and they wish maybe they would have kept their doors open a little bit more.



You can definitely sway decisions either way by academic or applied in Grade 8. I figured it was the course code that labelled us as to where you were going and the path you would take.

The decision to choose academic or applied courses, generally made at age 13, can limit options down the road. When paired with the other themes identified in the study it is easy to see why some youth do not want to take the academic option. Students may end up selecting applied courses because they appear easier without being fully aware of the effect that this choice has on post-secondary options and even future careers.

Inaccurate or incomplete information and bias

Students and their families often lack information, or hold misconceptions about post-secondary education (OUSA 2011). Ideas about attending PSE begin to form very early in a young person's life—and certainly before Grade 9 in most cases (Finnie 2012; Finnie, Childs & Wismer 2008). These opinions can be highly influenced by family, friends and community beliefs. Research indicates that people from underrepresented groups are more likely to perceive the benefits of PSE—particularly university—to be less worthwhile than the cost (Palameta & Voyer 2010; Social Research & Demonstration Corporation 2009). However, average tuition in an Ontario university (using Ontario's 30-per-cent-off program and other credits and rebates) can be under \$4,000 per year.

Research indicates that if students who chose not to pursue PSE had received greater information about program and funding options earlier in school, it would have improved their chances of participation. Unfortunately, programs designed to provide information and support to students from underrepresented groups are often ineffective because those who would benefit most have not heard of them (OUSA 2011).

Two student participants elaborated on financial concerns and knowledge of financial supports:

The only reason I knew about bursaries is because my dad heard from his friend who had a daughter that went to university. He said if you are struggling or whatever ... try and get bursaries so that made me check on-line ... so I just did it myself.

At the end of the Grade 8 we had some sort of career exposure in career days and things like that, but at that point I was really unsure about

whether or not I was going to be able to go to university. Just coming from my background, at that point I was fairly certain that I wasn't going to university ... just because I was aware of our financial situation. I wouldn't say I knew the true cost of university other than I had the opinion that it was a lot. And it was just sort of daunting.

Participants in this research also showed concern about the availability of jobs, and were unsure that university would be worth the cost.

Everything you see on TV is unemployment, 'there are no jobs', and there isn't. Kids are depressed, you know. Their parents aren't working, so it's, 'What am I going to do?' When I went through university a long time ago I just assumed I was going to get something—but today everybody is focused on a job. 'What does this lead to, to get some work ... because I hear it is scary out there'.

I wasn't sure what I would get out of university. Spending that much per year and then what am I left with? It was so abstract, and I knew that if I was paying for it and then I go through with it, how do I go about actually getting a job? If I had wanted to become a doctor I would have been comfortable with it, because I knew I would be working at a hospital. Where, had I taken a general degree in math, what would I be doing with that?

Like, you go to college to get training to get a job. University you go to specialize in something. I don't really know. They don't really set you up for a job in university ... like you just get information.

A number of the participants described how difficult it is to even consider the more abstract possibilities of university when they believe that they could more clearly, and more quickly, be earning an income right out of high school or college.

Men will go into the workforce when they are young because it's instant. Like, I can make 30 bucks an hour on the construction site right out of high school. Whereas going to university it takes a little maturity, it takes delayed gratification, it takes premeditation. When you are that age you don't think like that. You don't think like well, for the next four years, I am going to hang out here and be poor.

In my school all the kids went to college. We had a power plan, it was the dream, two years of college and you're making 120 grand. It was a struggle to



push for university for some people because we had the dream. We knew that two years at most in college and you are making ridiculous money.

A lot of kids pick college because of the practical piece and time—college is one to two years, university three to four—with college you're out and working in two years.

A few participants talked about feeling overwhelmed by post-secondary regulations, and practices such as the application process itself.

I am watching my sister, her daughter is in Grade 12, and she is just pulling her hair because it is all new, right? She has nobody to answer the questions. When we went to university or when we went to college or whatever you just filled out as many applications as you wanted. It was all free, right. There are 200 options now and you have to pay for them! You have to really know what you're doing. ... They are not free ... you have to pay for all that.

I think it would be more helpful if people knew what direction we could go to start doing what you have to do. You know when you get to Step 1 do this and then you get to Step 2 do that and so on rather than just being thrown out to the wind and just hope you get to the right place.

When the majority of people in a community make a particular choice, or hold a certain belief, about

pursuing PSE it can be difficult to select a different path. Two service providers noted:

Well, depending on the school students go to there are certain influences ... there's still a stigma around certain schools. For example, living in Niagara, I can think of one school, it's generally perceived that the education there is not very good, but there are some phenomenal teachers there. In the community, that's how it's perceived though. So the students hear all the negative things about their school and they don't feel that they're intelligent enough to go on to further education. It's just a stigma more than anything, but it affects them.

Community plays a big part in choices too—in the stigma attached to choices that kids make. For example if you went to certain secondary schools and you said you were going to go to college that may not be acceptable, whereas in reality for a certain child it might be the best choice. Even to do an apprenticeship. Some kids will do an apprenticeship in electricity or plumbing and they'll make more money than most of their friends within a few years. But it's these outside perceptions that affect choices too ... it's just getting around those barriers.

In this research project many participants felt that the world of PSE was expensive, unknown, and inaccessible. For many people coming from low-income families in particular it is difficult to even imagine including higher education in their futures. One parent said:

I think if somebody has been raised at a certain economic level they're just resigned to it (not all, but certainly a large portion—I was part of that large portion)—university is something I will never do; it's something I don't think my child will ever do. It's expensive and I don't think my child would fit in there anyway.

The costs, benefits, outcomes, requirements and various pathways to post-secondary education are often quite unfamiliar to students, their parents, and their communities. This lack of knowledge can be further exacerbated when the important people in a student's life share inaccurate information, bias or expectation toward one path versus another. When this incomplete view of post-secondary education is coupled with the other barriers outlined, it is easy to see how ensuring equal access to education is a complex and challenging matter. It is certainly an issue that must begin to be addressed very early in a student's educational life and be ongoing through multiple channels.

What Can We Do?

There has been a great deal of work done to improve access to post-secondary education over the last decade with initiatives such as specialist high skills majors programs, dual credits, bridging programs, and transfer agreements. There is still much more to be accomplished, however, in ensuring that those with potential have equal opportunity to choose PSE. This research supports previous findings on access to post-secondary education, and provides descriptive insight that can be useful for policy development particular to Niagara. Additional dialogue on this issue is recommended and five areas for attention have been identified.

1. Recognize the importance of addressing social-emotional needs in school

Offering a wide variety of curricular possibilities, ensuring meaningful connections to the school's adults, and providing many co-curricular options (sports, clubs, trips for example) are often very important in helping some students connect to the educational environment. Yet these very elements are often challenged when time or funding is limited. Social and emotional needs are at the very foundation of keeping students in school and inspiring them to make education a lifelong practice. All other access initiatives will be less effective if students don't feel like they belong.



2. Help every young person get excited about their future

Mentors and role models from similar backgrounds can help young people see the pathways that others have taken, and thus come to believe that they, too, can succeed. Field trips and experiential learning opportunities provide young people with a broader understanding of the full range of educational and work opportunities available. Information about the emerging sectors targeted for Niagara should be shared with young people of all ages to help them understand the new employment options that may be available in the future. These are just some of the ways that students can be supported to set goals and make the PSE choice that is right for them.

3. Consider the implications of choosing academic or applied courses at an early age

Research from Ontario, as well as international research, shows that dividing students in Grade 9 tends to decrease achievement for those who may be struggling. The Organization for Economic Co-Operation and Development recommends delaying this type of division until later in high school. Further investigation on how choosing academic or applied so early may be limiting the pathways of Niagara youth is essential. In the meantime, parents and students should be given explicit information on how to make the right long-term choice in selecting between course designations.

4. Provide more information through a collaborative approach

The employment landscape has changed significantly in recent years. Many people are unfamiliar with the new types of jobs available and the training required. Within post-secondary education much has changed as well. Many families and educators are unfamiliar with the new PSE offerings, on-line opportunities, pedagogical approaches, institutional supports, bridging programs, and options to move between different forms of post-secondary education that are being created every day. A more informed community can be facilitated by greater collaboration between everyone involved including students and families, elementary and high schools, colleges and universities, governments and the private sector. Financial and time investments will be necessary to sustain these collaborations. Access means finding ways of ensuring that every student views post-secondary education as a realistic option, and has the knowledge and support necessary to make informed choices all along the way.



5. Start building awareness at a young age

Post-secondary awareness and preparation has traditionally been targeted toward high school students. This is clearly too late. Student experiences in elementary school play a major role in framing future decisions about post-secondary education. Early and proactive efforts are essential to expand horizons and introduce young people to future careers and training requirements. Issues addressed in targeted early awareness programs may include school engagement, self-esteem, academic preparation, career and PSE awareness, as well as financial planning. Post-secondary education institutions should be actively involved in these early awareness initiatives, as well as providing opportunities for on-site visits to help young people visualize themselves in a PSE environment.

Higher education and lifelong learning is essential to Niagara's economic prosperity, community engagement, and to the health and welfare of individuals and their families. This descriptive research has allowed a deeper look at some of the variables that can potentially determine the choices of students in their decision to pursue PSE. Findings call for consideration of holistic policy initiatives that start early and address the complexity of factors that each individual may face.

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The Niagara Community Observatory is a local public policy think tank at Brock University in St. Catharines, ON. More information on our office and references to this policy brief can be found at:

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