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Participation of Low-Income Students in Ontario

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Introduction

Over the last few decades there has been a great deal of ink spilled about the importance of postsecondary education (PSE) in Canada and globally. We are moving from a mid-20th century idea of postsecondary education as “elite” to a new understanding of “mass” postsecondary education (Trow, 1974), and potentially to a newer view of postsecondary education as “universal.” The growing consensus is that postsecondary education is important to society, in providing the skills workers require in the labour market, in supporting the social and economic health of society, and in ensuring individuals have the necessary abilities to participate and contribute fully in that society and labour market. What once was accepted as the luxury of the upper and middle classes is now understood to be a prerequisite for full inclusion in the benefits and functioning of society.

As PSE in Ontario grows to “universal” proportions and beyond, youth from low-income backgrounds stand to gain in terms of their socio-economic status. Nevertheless, potential students from low-income backgrounds continue to take up postsecondary education with less frequency than their middle- and high-income counterparts, particularly at the university level (Drolet, 2005; de Broucker, 2005; Berger, Motte and Parkin, 2009; HEQCO, 2010).

Income is an important determinant of participation in PSE. Knowing this, the public policy response has long been a focus on keeping tuition relatively low and providing student assistance to students who demonstrate need. However, recent research has revealed that income alone is not as strong a determinant as academic achievement or parental education (Drolet, 2005; Frenette, 2008a; Finnie, Childs and Wismer, 2010). Characteristics often associated with income make the barriers to postsecondary more complex and multi-faceted. Furthermore, it has also been shown that changes to student assistance and tuition levels over time have had very little effect on the participation of the lowest income quartile (Berger et al., 2009); meaning that other policy levers may be required to address the complexity of the barriers in a more sophisticated way.

This is the first in a series of *@ Issue Papers* that looks at the participation of traditionally under-represented cohorts in postsecondary education.¹ The purpose of this *@ Issue Paper* is to summarize what is currently known about the participation of low-income students in PSE, with a particular emphasis on low-income students in Ontario. Where relevant data or research is not available for Ontario, the discussion will focus on the larger Canadian picture.

Ontario presents an interesting case study in the attempt to increase access for low-income students. The student population in Ontario represents approximately 40 per cent of the total Canadian student population, with one of the highest overall

¹ See Norrie and Zhao, 2010, for an overview of participation for students from all traditionally under-represented groups.

participation rates in the country. Ontario has traditionally had a binary system, with a strong college sector, and some of the oldest and largest universities in Canada.

The Ontario Government's *Open Ontario Plan*, revealed in the 2010 Speech from the Throne, set a goal to increase the provincial postsecondary education attainment rate to 70 per cent (Government of Ontario, 2010).² Participation rates of cohorts that traditionally go to PSE are relatively high. Youth from middle and high socio-economic backgrounds attend postsecondary in relatively large numbers (Drolet 2005; Berger et al., 2009). Increasing overall participation, and therefore attainment, in Ontario will require a focus on increasing participation for traditionally under-represented groups, including low-income youth.

What we know about participation in PSE for low-income youth

There is a considerable body of existing literature on the subject of participation. In Canada, a rich array of data sources is available to assist researchers who examine PSE access and persistence. Among these are surveys conducted by Statistics Canada, such as the Survey of Labour and Income Dynamics (SLID) and the Postsecondary Education Participation Survey (PEPS). The Youth in Transition Survey (YITS), in particular, has yielded useful data about the factors influencing PSE attendance and persistence. Furthermore, the legacy of the Canada Millennium Scholarship Foundation includes a decade of research into access issues, the *Price of Knowledge* series, and the *Measuring the Effectiveness of Student Aid* (MESA) project. Focussing on access and persistence for low-income students in particular, the MESA project also conducted the *Longitudinal Survey of Low Income Students* (LSLIS), which investigated the habits, finances and attitudes of low-income students on student financial assistance, and the interplay between finances and persistence in their academic studies (MESA, 2010).

Drawing on these sources and others, HEQCO researchers in recent years have produced a number of reports with an Ontario focus. Among these are the analysis of Dooley, Payne and Robb (2009) into family income as it relates to applications submitted for admission into Ontario universities; the YITS-based analyses of access for various under-represented groups conducted by Finnie, Childs and Wismer (2011a and 2011b), and Palameta and Voyer's (2010) study involving a high-stakes laboratory experiment that investigated the willingness to pay for PSE among potential students in under-represented groups.

In Canada and Ontario alike, PSE participation rates have been rising over recent decades. de Broucker and Hango (2007) document a 10 percentage point increase in the PSE participation of Canadian youth aged 20 to 24 between 1990-91 (23 per cent)

² For a full discussion of participation and attainment rates for Ontario, see Norrie and Lin (2010).

and 2005-06 (33 per cent). Over the same period, full-time university participation rose from just over 15 per cent to about 25 per cent, while college participation rose from 7 to 10 per cent. The authors also show that growth in Ontario's participation rates mirrors that of Canada overall, but at slightly higher levels for university, and hence, overall PSE participation throughout the period.

At the national level, various sources reveal an ongoing, significant, and positive relationship between family income and PSE participation. For instance, de Broucker (2005) compared seven studies investigating the PSE participation gap between low- and high-income families. Although the studies varied in their reference years and data elements, the review revealed "broad agreement on the size of the participation gap among young people from different family-income backgrounds: young people...from high-income families are two to three times more likely to go to university than young people from low-income families" (de Broucker, 2005: vii).

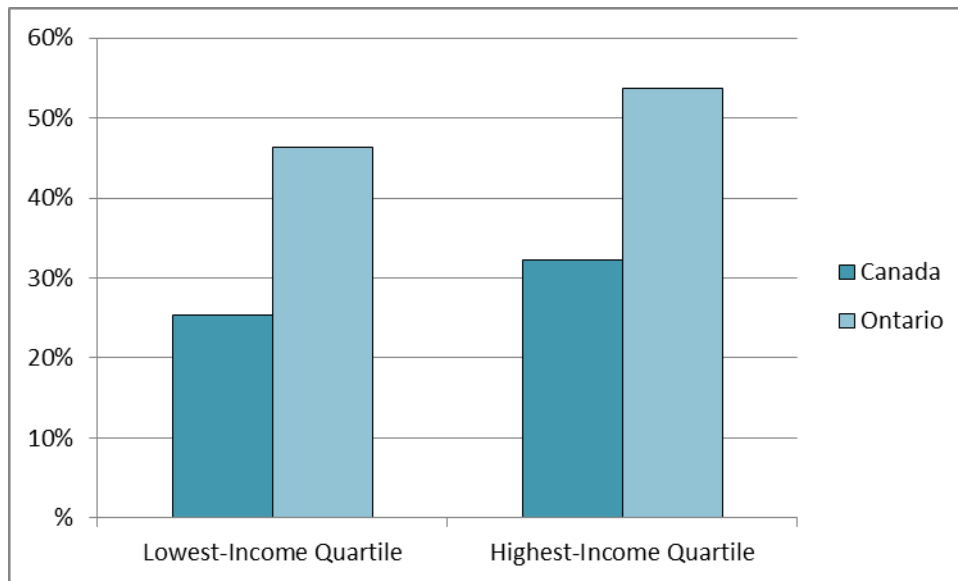
Since the de Broucker (2005) study, Berger et al. (2009) have more recently used SLID data to investigate trends in the gap in PSE participation rates among income groups over time. They discovered that between 1993 and 2006, the gap in overall PSE participation between Canadian youth from families reporting more than \$100,000 in income per year and those from families reporting less than \$25,000 remained stagnant, hovering at around 25 percentage points. Looking specifically at university participation, the gap is more pronounced, with individuals from families earning over \$100,000 annually *being more than twice as likely* to attend university as those from families earning less than \$25,000. As for overall PSE, their analysis shows that this ratio has changed little between 1993 and 2006.

When those who do not complete high school are factored out of participation rate calculations, one might expect the gap between low- and high-income youth to narrow. Zeman (2007) uses YITS data to examine university participation rates of high school graduates from the lowest and highest income quartiles. Looking specifically at the university level, data from the 2003 YITS (cohort A),³ show a substantial gap between Canadian youth from the lowest (25.4 per cent attendance) and highest income quartiles (32.2 per cent attendance). However, as anticipated, this is less of a gap than is described among the studies reviewed by de Broucker (2005).

Figure 1, below, also drawn from the Zeman (2007) study and focussing only on high school graduates, shows that the gap in university attendance between Ontario youth from the lowest (46.4 per cent attendance) and highest income quartiles (53.7 per cent attendance) was slightly larger than that of Canada overall, although participation was higher in both income groups (Zeman, 2007).

³ Cohort A consists of youth who were 15 years of age in 1999, who were later surveyed at age 19 to better understand their transitions into postsecondary education.

Figure 1: University Participation Rates of High School Graduates, by income quartile, Canada and Ontario, 2003



Source : Zeman, 2007.

Berger et al. (2009: 47) have used SLID data to show that the participation gap between the highest income quartile (>\$100,000) and the lowest income quartile (<\$25,000) has remained relatively stagnant over the last decade. As summed up by HEQCO's *Third Annual Review and Research Plan* (HEQCO, 2010: 32), "The gap fluctuates between 16 percentage points (in 1995) and 31 percentage points (in 2004 and 2006), but the trend is flat. The gap for 2006 (31 percentage points) was nearly identical to that in 1994 (30 percentage points)."

Similar to Berger et al.'s (2009) approach for national data, HEQCO (2010) used SLID data to investigate the PSE participation of Ontario youth from different income groups over time. In so doing, it was discovered that while university participation rates among the bottom three income quartiles remained stagnant between 1999 and 2007, participation among those in the highest income group saw a marked increase in the years following 2002 (Figure 2, below).

Figure 2: Number of Ontario Students (in thousands) Attending University Full-Time by Income Quartile, 1999-2007

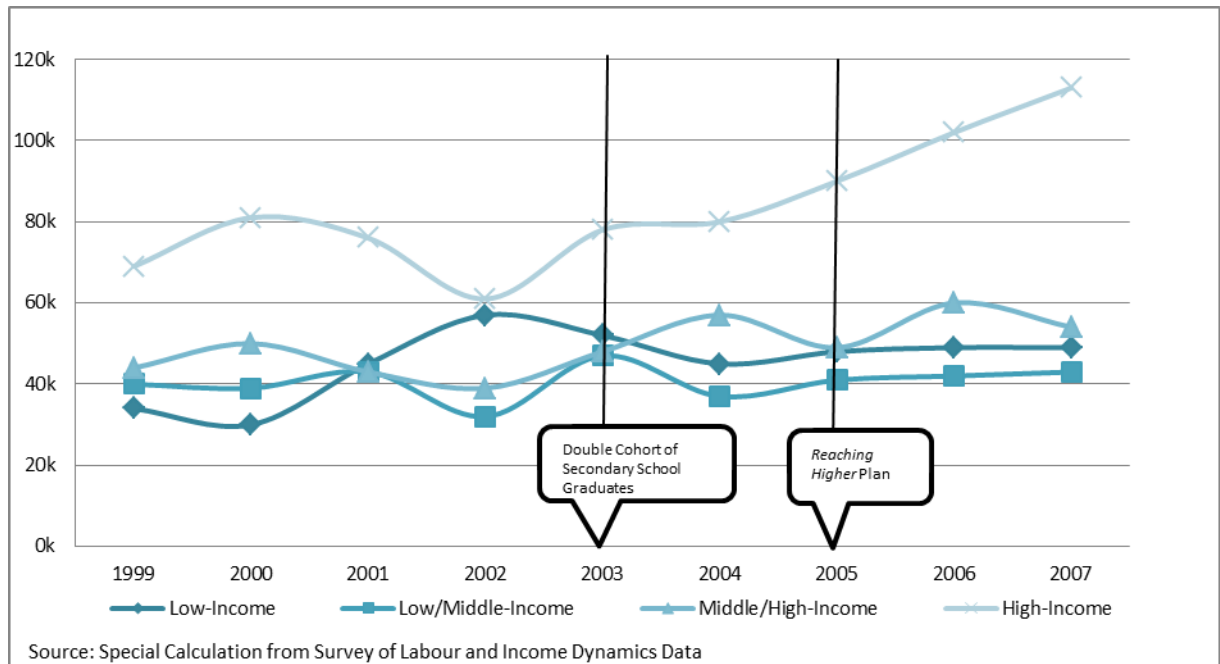


Figure 3 (below) shows a somewhat different picture for colleges however. Using the same data, it appears that there is very little difference between income groups in relation to participation over time.⁴

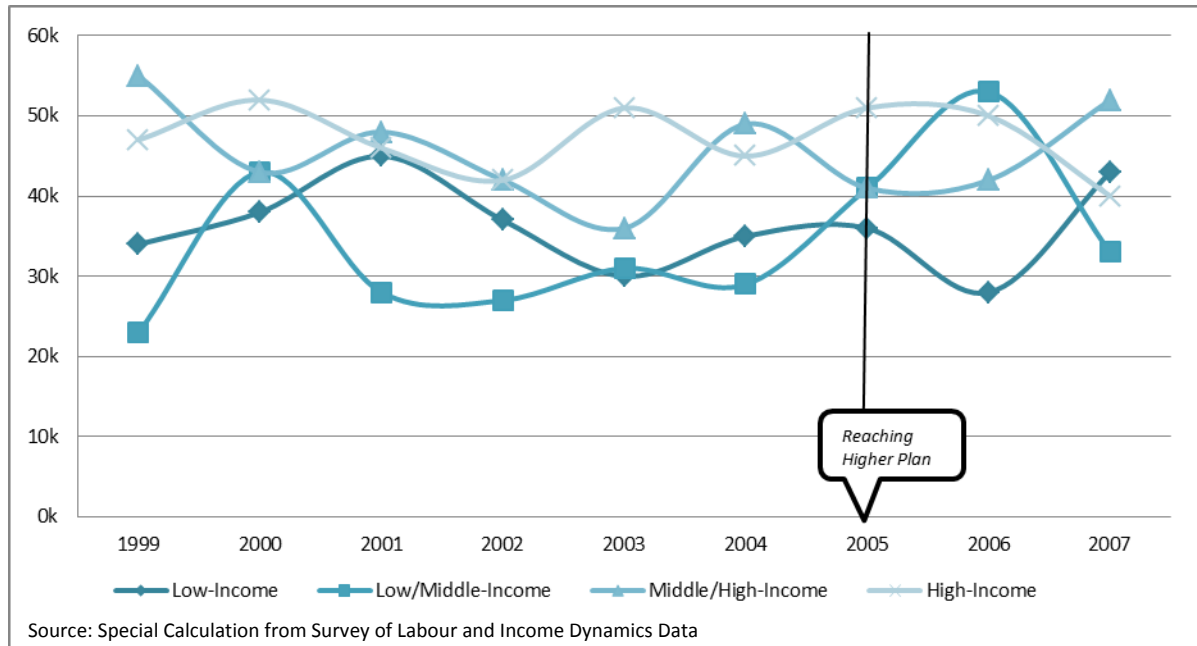
Overall, participation rates for both groups together, college and university, are similar to the national picture as described by Berger et al. (2009): a steady increase in the participation of the highest income quartile over the last decade (mostly due to university participation) and a stagnation of the participation rates of the lowest income quartile, has created a fixed gap of approximately 30 percentage points between the highest and lowest income groups.

Dooley et al. (2009) conducted a study of students applying to Ontario universities and grouped these applicants into income quartiles based on the average incomes in the neighbourhood of the applicant's high school. Given the participation data examined above, it is not surprising that these authors found that the highest proportion of applications came from students who had attended schools in the highest income quartile, while the fewest applications were sourced from the schools in the two lowest income quartiles. Between 1995 and 2005, a period which saw significant tuition increases in Ontario and across Canada, the number of applications submitted from

⁴ Dramatic fluctuations in the trend lines are likely due to the smallness of the data sample size for Ontario.

those in the highest income quartile schools increased, while the numbers remained stagnant for those in the lower income quartiles.

Figure 3: Number of Ontario Students (in thousands) Attending College Full-Time by Income Quartile, 1999-2007



In sum, evidence suggests that family income has a strong connection with the decision to attend PSE, and that this is as true in Ontario as in Canada, particularly at the university level.

Policy response: Student financial assistance and tuition

The response to this situation has primarily been twofold: first, a consensus that tuition should be kept relatively low, and while many would argue that it is not low enough, there is no question that a sector wide cap on tuition levels keeps costs lower than they might otherwise be. Second, governments at the provincial and federal levels provide assistance in the form of loans, grants (front and back end), interest relief during the academic period, tax refunds and assistance in repayment for those that are having trouble. In other words, keep costs low and provide financing help at the point of entry, through the study period and in repayment.

Government student financial assistance programs are predominantly needs-based, and represent “the principal method of enabling Canadians with limited resources to keep up with the rising cost of post-secondary education” (Berger et al., 2009: 153). Student financial assistance programs are inherently complex, particularly in Canada, where they are jointly funded and administered by provinces and the Federal

government. Fortunately, the federal and provincial components of loans are integrated in the Ontario Student Assistance Program (OSAP), making the administration of loans somewhat less complex from the student perspective than in provinces in which they are not integrated. Loans are the predominant mode of government student financial assistance, although recent years have seen an increase in the proportion of support that is provided in non-repayable grants.

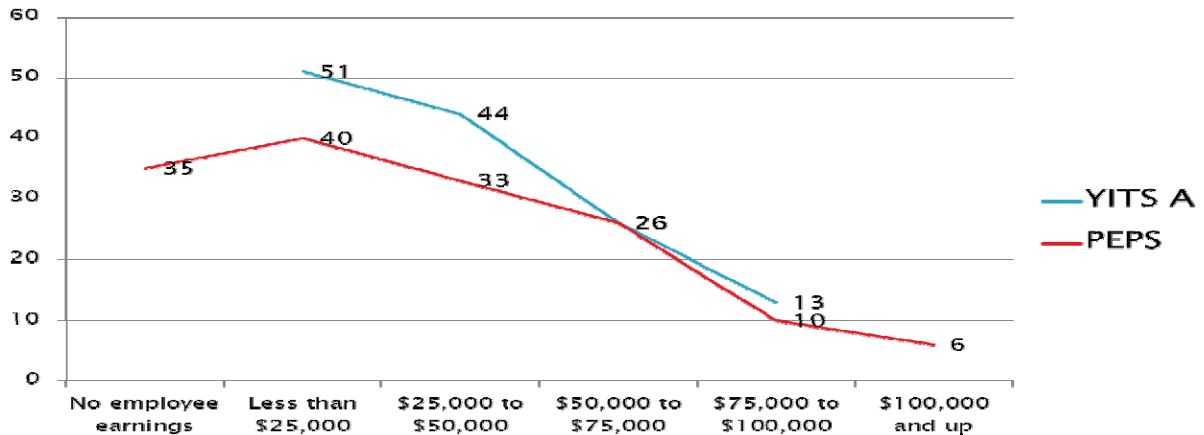
According to Berger et al. (2009), in Ontario, the proportion of need-based student aid that is non-repayable (i.e., grants or loan remission) reached 30 per cent in 2007-08, a level on par with the national average. Given the changes to OSAP since the 2009 publication, the proportion of non-repayable assistance to repayable is now closer to about 35 per cent in 2009-10. In addition, among all provinces, except for Quebec where tuition is significantly lower, Ontario ranks highest in the amount of needs-based funding available on a per student basis. These findings align with the Drewes (2008) analysis for HEQCO. Drewes found that although Ontario PEPS respondents reported higher average educational expenses for university than did their counterparts in other provinces, they also indicated that high costs of education in Ontario are supported by higher levels of available funding sourced from repayable (government and private loans) and non-repayable (grants, bursaries and scholarships) sources.

Recent years have seen enhancements to Ontario's student financial assistance programs that include higher maximum loan amounts, a doubling of the amount of weekly student income that is exempted from the needs assessment, and a 6-month interest-free period after completion of studies wherein payment on loans is not required (MTCU, 2011). However, even with generous grants and increased maximum loan amounts, student financial assistance is often insufficient to cover all of a student's assessed financial need. According to the Ontario Undergraduate Student Alliance, the College Student Alliance and the Ontario Student Trustees Association (2011), 42 per cent of Ontario students have financial need not met by student assistance programs, with an average amount of \$1,191 in unmet need. This is where institutional support is expected to play a role.

The Student Access Guarantee (SAG) was introduced in 2006 along with tuition reforms that followed the release of *Ontario: A Leader in Learning*, Bob Rae's extensive review of the Ontario postsecondary system. Given the lifting of a tuition freeze at that time, the SAG promises that no Ontario student should be prevented from attending Ontario's public colleges and universities due to lack of financial support programs. Institutions, as part of the guarantee, and in return for increased tuition revenue, are expected to provide resources for tuition, books and mandatory fees where unmet need exists.

However, the Student Access Guarantee only applies to those students who receive OSAP. Interestingly, a significant number of low-income students in PSE do not access government student aid. Berger, Motte, and Parkin (2009: 159) using YITS and PEPS data, find that "fewer than half of all students [in Canada] from families earning less than \$50,000 per year receive student financial aid." (See figure 4, below).

Figure 4: Student loan take-up among college and university students by parental income



Similar work by HEQCO using SLID and OSAP data revealed that in 2007-08 only 50 per cent of full-time university students from the lowest income quartile applied to OSAP. The figure rises to nearly 70 per cent for those in the second income quartile. The application rate is 40 per cent for those in the third income quartile and just under 10 per cent for the highest income quartile. The situation is even more pronounced for colleges. In 2007-08 only 30 per cent of full-time college students in the lowest income quartile applied to OSAP. The figure is over 40 per cent for the second income quartile (Norrie and Lennon, 2011: 20).

This would necessarily mean that a large proportion of students from low-income backgrounds are missing out on the non-repayable grants that target these populations. This is unfortunate given that a quick calculation on the OSAP website student aid calculator reveals that Ontario students from families with incomes of less than \$35,000 can qualify to have approximately 85 per cent of their tuition covered by grants, in their first two years of PSE. Students with parental incomes less than \$50,000 qualify to have approximately 60 per cent of their tuition covered in the same way.⁵

What is more perplexing is the question of how these students are able to pay for their education. Berger et al. (2009: 160) speculate that the significant proportion of lower-income students who are studying at the college level may account for some of this paradox, because “less than one-third of college students with similar parental income reported accessing student aid.” The costs associated with college attendance are lower, and if students have savings or income from work, their assessment of need may not result in eligibility for funding.

⁵ Estimates were run using variables for a dependant student, living at home, and attending a university arts and science program.

In sum, despite policies and programs in place that address issues of liquidity and make it easier for low-income students to attend postsecondary education, low-income students are still not attending postsecondary in the same numbers as their middle- and high-income peers. When they do attend, they are not always taking advantage of those programs in place to assist them.

How perceptions about cost and debt impact decisions about PSE

While support is available for low-income students, there are a number of reasons they might not be accessing it to attend PSE, and/or choosing to forgo postsecondary education altogether. Some of these reasons have to do with how students perceive finances – or a lack of finances – as a significant barrier to entering or continuing in PSE. Conventional wisdom would suggest that the participation gap is driven by the ability of the affluent to pay for PSE regardless of tuition costs, which have risen above the rate of inflation over recent decades. Such logic would also suggest that participation of those from low-income backgrounds would decrease under similar circumstances, as they would be less able to accommodate the rising costs. However, participation rates have remained more or less stagnant among those from low-income backgrounds, regardless of changes to tuition levels or student financial assistance. In fact, in their extensive review of trends in participation and tuition costs, Junor and Usher (2004: 104) found that “the evidence to support the notion that price—that is, tuition and foregone income—is a barrier to access is, in an aggregate sense, slim to nonexistent.”

However, despite these findings, cost and lack of finances are still cited by students as a barrier to participation. Bowlby and McMullen (2002) found that among Canadian youth who reported facing barriers to furthering their education, two-thirds included barriers of a financial nature among their reasons. In addition, Drewes (2008) found that 35 per cent of those Ontario PEPS respondents who did not pursue PSE cited financial issues as the primary reason. However, although financial issues were most frequently cited, it should be noted that the remaining 65 per cent cited some other non-financial reasons. Nevertheless, the study revealed evidence of a correlation between actual educational costs and the frequency with which youth cite financial reasons for non-attendance. In Atlantic Canada, where tuition fees are among the highest in Canada, 42.3 per cent of non-pursuers cited financial reasons, while in Quebec, where tuition is lowest, only 20 per cent cited financial reasons.

It is obviously difficult to extrapolate perceptions from actual financial barriers when using self-reported constraints in this manner. Following students in their educational transitions by using of the YITS data, Frenette (2008a) found that 84 per cent of the gap in attendance between Canadian youth from low- and high-income backgrounds can be explained by factors such as high school marks, high school quality, and parental influences while only 12 per cent of the gap is related to financial constraints. This suggests that a significant proportion of self-reported financial barriers may result from misperceptions.

Usher (2005), found that, in general, Canadians tend to overestimate the costs of PSE. In fact, among the provinces, respondents from Ontario had the highest average estimates of university tuition costs. Usher also found that those from low-income backgrounds tend to overestimate costs to a greater degree. At the same time, the difference in average income earned by university graduates compared to those who have only completed high school is *underestimated*, particularly by those from low-income backgrounds. As a result, it may be the case that when low-income parents and their children consider the possibility of PSE, their cost-benefit analyses are unjustly skewed towards a decision that attendance is not worthwhile. In fact, the Acumen Research Group (2008) found that the perceived return on investment in PSE is predictive of university attendance. OUSA et al. (2011) speculate that this effect is related to high tuition costs, which may “indirectly affect the participation of underrepresented groups by influencing how students perceive the benefits of higher education” (OUSA et al., 2011: 19). The impacts of perception are further exacerbated by the over-reliance of Canadian families on unofficial sources of information about postsecondary education (Usher, 2005).

Palameta and Voyer (2010) point to the distinction between liquidity constraints and price constraints. On the one hand, potential students see PSE as a worthwhile investment, but lack access to the funds required. The availability of student financial assistance is thought to address such constraints. On the other hand, whether price constraints exist depends upon the perceived value of investments in PSE: “willingness to pay for PSE may extend only to a certain threshold beyond which PSE is deemed to be too expensive” (Palameta and Voyer, 2010: 5). In their innovative, laboratory experiment approach it was observed that those from low-income backgrounds were more price sensitive when it comes to investments in PSE.

Liquidity and price constraints may have effects not only upon the decision to attend PSE, but also on the choice of institution and program. Different choices carry different costs. College usually carries lower costs than university in both tuition and duration, and this may account for the smaller gap in college attendance among income groups. In some provinces, where students are easily able to take courses at college which they later apply towards university credentials, this transferability is thought to reduce overall study costs and increase accessibility system-wide (Andres and Krahn, 1999). In Ontario, however, there is room to increase transferability between the college and university sectors, which have traditionally been quite distinct from one another (OUSA et al., 2011).

Program choices also vary in their costs. Investigating the effects of tuition on choices at the program level, Frenette (2005) investigated the deregulation of tuition fees, with a focus on the sharp increases in professional programs (i.e., law, medicine and dentistry) that occurred in Ontario between 1996 and 2002. Using parental education level as a proxy for a student’s socio-economic background, Frenette found that amidst these sharp tuition increases, enrolment in these programs increased among those students with parents had graduate or professional degrees, but declined among those whose parents had postsecondary education at a lower level. However, enrolment

increased among those whose parents had no PSE at all. Frenette posits that enrolment among these, presumably disadvantaged, students, was not affected by the sharp tuition increases because student financial assistance was enhanced for students in need, and because the increased tuition allowed the programs to take in more students. If this explanation is accurate, it would mean that there is little evidence of debt aversion among low-income students taking up these high-cost programs.

Debt aversion is another financial barrier that is commonly discussed in connection with the lagging participation of students from low-income backgrounds. The fear arises from common-sense assumptions that those who are less able to pay back their debts will avoid the risk of taking on significant loans. However, the literature does not fully support these assumptions. In its 2006 scan of relevant literature, the Canadian Council on Learning found that “it is difficult to establish to what extent debt aversion pertaining to educational expenditure is a problem endemic to lower-income groups specifically. Rather, aversion to debt is shared by all those uneasy with the increasing costs of education, especially compared to smaller increases in real incomes” (Canadian Council on Learning, 2006: 3). Moreover, in the Palameta and Voyer (2010: 54) experiment, it was shown that:

...though some under-represented groups show a slightly greater tendency to loan aversion, the link is weaker and less clear cut than it is for price sensitivity. Loan aversion appears to be more a function of low numeracy, a tendency to discount future rewards, and perceptions that the costs of PSE may be high relative to its benefits.

One primary source of financial barriers faced by youth from low-income backgrounds is the extent to which parents are willing and able to contribute toward the educational costs. Cervenak and Usher (2004) found that parental contributions toward postsecondary costs have been declining since the introduction of the Canada Student Loans Program in 1964, while reliance on student financial assistance increased. Setting the issue of student financial assistance aside for a moment, if low-income families can contribute at all toward their children’s PSE costs, it is likely to be as a result of savings. Drewes (2008) notes that PEPS respondents in Ontario reported saving for education with greater frequency and in larger amounts than did respondents from other regions. However, Shipley, Oullette and Cartwright (2003) found that those in lower-income brackets across Canada were less likely to save for their children’s education.

Milligan (2004) investigated the use of two federal tax-based programs to encourage families to save for their children’s postsecondary education: the Registered Education Savings Plan (RESPs) and Canada Education Savings Grants (CESGs). He found that these programs are used mostly by high-income, highly educated parents. While at first, a lack of financial literacy seems a likely culprit for this low take up, Shillington (2008) found that awareness of RESPs is very high among Canadians regardless of income (75-80 per cent).

To pay for educational costs, and the costs of living while in school, students of all types use various resources other than parental contributions. These include saved income from work in the pre-study period, income from working while in studies, tax credits, merit-based financial assistance (e.g., scholarships and awards), and need-based assistance (e.g., loans, non-repayable grants, bursaries).

In sum, perceptions of cost and benefit of PSE are complex and seem to have as much if not more effect on decisions to participate as actual liquidity at point of entry; this effect seems to be most pronounced for low-income students.

Barriers to participation for low-income youth: financial and non-financial

To address barriers to participation for low-income youth, it must be understood that perceptions of cost and benefit of PSE take hold at a much earlier age than point of entry into PSE. By that time the decision to attend, or not, is fairly well established. It is clear that the issue of affordability, defined as cost constraint, is not the only force at work behind widening inequity in PSE participation. In fact, there is a growing body of evidence suggesting that the factors that hinder and incent participation are highly complex, and include considerations beyond simple financial barriers.

Finnie, Childs and Wismer (2010) note that the “affordability” assumption has driven many policy attempts to level participation among income groups including tuition regulation and the enhancement of student financial aid programs. As better data have become available, researchers have been driven to test the assumption that cost constraints, or liquidity at time of entry to postsecondary, are the primary barriers preventing youth from low-income backgrounds from taking up PSE studies.

The focus on issues of finance may arise naturally; much of the research focussing on PSE participation is based on economic theory wherein calculations of cost and benefit are seen to drive student decisions. Furthermore, for government it is simpler to utilize levers related to cost constraints, such as tuition regulation and student financial assistance programs. Levers associated with more complex or deeply rooted motivational and informational barriers are not as easy to identify, let alone implement.

One of the issues that adds complexity to economic analysis of the decision of whether to attend PSE is the involvement of parents. As much as parental income has a bearing upon a child’s ability to pay for postsecondary education, it is becoming clearer that parental expectations and parental education levels are just as, if not more, influential in a child’s decision of whether to pursue PSE (Drolet, 2005; Frenette, 2008a, Finnie, Childs and Wismer, 2010) .

In short, factors that hinder PSE participation are as much social and cultural as they are financial. Moreover, these factors overlap, interweave, and influence each other—no barrier to participation works in isolation from another. The network of observable

and underlying barriers is probably not divisible, and therefore, approaches taken to improve access that focus on only one barrier or obstacle may not be completely effective. For instance, parental income is inextricably linked to parental education levels, so the influence of parental expectations and attitudes toward education may have been masked in less sophisticated studies that focussed only on the positive correlation between income and participation.

Non-financial barriers have important effects. Rivard and Raymond (2004), in their investigations of the 1990s steep climb in average tuition and its effects, found that academic preparation and parental education were critical factors in young peoples' decisions to transition to PSE, regardless of parental income. The authors posit that "academic rather than financial barriers at the time of enrolment are perhaps what most prevent low-income students from attending PSE programs... particularly at the university level" (Richard and Raymond, 2004: 1).

The most significant academic barrier to PSE attendance is not finishing high school, which is a basic pre-requisite. Sweet, Anisef, Brown, Walters and Phythian (2010) found evidence that the socio-economic characteristics of a child's neighbourhood can affect academic achievement in secondary school and that low-income rates in a neighbourhood predicted drop-out rates in Vancouver, Montreal and Toronto. Academic barriers are particularly significant in the Ontario context. Drewes (2008: 5) finds evidence of a higher degree of rationing in Ontario as compared to other regions, remarking on the scarcity of research looking into the effects of capacity constraints on access "given that the simple lack of capacity is both an obvious barrier to entry and a potential source of inequity in access." It is possible that students from low-income backgrounds are more likely to decide early on that PSE is not affordable and "select out" of that pathway, which would leave them with less incentive to work hard and achieve the grades needed to get into PSE.

Attending PSE, particularly at the university level, requires not only a sufficiently high grade point average but also the selection of the right pre-requisite high school courses for a given program of study. Motivation is intertwined with academic and financial barriers, because the earlier that a secondary school student decides to attend PSE, the more time there will be to prepare and save. Focussing on the Ontario respondents to the LSLIS, Finnie, Childs and Wismer (2011b) find that among low-income students who successfully transitioned to PSE, 36.5 per cent reported having "always known" that they would go on to PSE, a response reflecting a lack of motivational barriers. Over 26 per cent of respondents decided to pursue PSE at some point between grades 9 and 10, while fewer (19.8 per cent) decided in grades 11 and 12. Only 5.3 per cent of respondents decided to attend after high school graduation. Early deciders were found to be much more likely to have savings set aside for PSE.

Conclusion and policy implications

In sum, we know quite a bit about low-income students and their behaviour from the research of the past 10 years or so. We know that low-income students often face multiple barriers to participation, and that they often make decisions about

postsecondary education early in their school life. We also know that those decisions are based at times on misinformation or misperceptions about the cost (both in terms of upfront cost and lost opportunity costs) of attendance.

The traditional public policy response to supporting low-income students in participating in PSE has been to use the combined levers of controlled tuition and available student financial assistance. The assumption of this response is that low-income students are discouraged from attending PSE by a lack of liquidity at the time of entry to PSE. However, despite these levers, as we have seen, participation rates for low-income students remain lower than those of middle- and upper middle-income youth.

It is not possible to know what the rate of participation for low-income students would be if tuition was higher or less student assistance was available. It is reasonable to expect that participation rates would be even more unequal than they currently are; just as it is reasonable to assume that controlled tuition and available assistance at the time of entry is a support system that encourages some low-income students to participate in PSE. However, it is clear that it does not work for all low-income youth, and this likely has something to do with the fact that the barriers that low-income youth encounter are far deeper than a simple lack of liquidity at time of entry to PSE. Decisions are made earlier than point of entry and are based on cultural and social realities that can be difficult for high school students to understand and articulate. Therefore there needs to be a third public policy response to compliment the levers of tuition regulation and student assistance.

What that third response might look like is the subject of another paper but it would involve interventions at an earlier age that would address sociocultural barriers and perceptions, alongside issues of cost, rates of return and debt aversion. HEQCO has recently commissioned a literature review and environmental scan of financial literacy policies and programs (Frenette and Robson, 2011) that support youth making decisions about postsecondary education.

Early intervention programs, such as those that have been running in the US – some of them for as long as four decades, and those that were piloted by the Canada Millennium Scholarship Foundation – are also worth looking at for appropriate models. *Pathways to Education* in Ontario has begun this work in select locations, but there is much more to be done at a system level.

At the same time, more can be done with the levers currently available. This would involve re-thinking the purpose of the student financial assistance program and whether or not it appropriately supports students with higher need before, during and after the postsecondary education period (see Norrie and Lennon, 2011 for a further discussion of policy options for tuition regulation and student financial assistance).

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