

**POST-HIGH SCHOOL PATHWAYS OF IMMIGRANT YOUTH**

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### **Introduction**

First and second generation immigrant students now make up 80% of TDSB high-school enrolments (Yau & O'Reilly, 2007). Many are recent arrivals while others are the children of foreign-born parents (the so-called 'second generation') together they constitute one of the most culturally diverse student populations in the country. Post-secondary education is an important, even essential, vehicle for their future economic and social integration (Cheung, 2007). While many immigrant adolescents aspire to a college or university education, gaining access to these institutions builds on academic success in high school. There is evidence of considerable variability in achievement levels and dropout rates among immigrant students enrolled in the TDSB (Anisef, Brown, Phythian, Sweet, and Walters, 2008). Completing high school is, of course, prerequisite to gaining access to post secondary studies and is consequently among the first, and most important, steps immigrant youth take toward making the most of the opportunities that served to motivate their family's move to Canada. Failing to complete high school jeopardizes the economic prospects of immigrant youth and imposes a social cost on Canadian society that it can ill afford. Existing research has not, however, identified which immigrant groups are vulnerable nor has it linked high-school performance with post-high school transitions (Boyd, 2008).

Our proposal specified two main objectives with regard to the analysis of the 2000 Grade 9 cohort of students who began high school in the TDSB in September 2000 and were tracked through the TDSB until fall 2006: (1) the prediction of post high school pathways (PHS) of immigrant youth and (2) the prediction of PSE choices (university or community college) among immigrant youth. Our review of the empirical studies and the preliminary analysis of educational

pathways has led to a broadening the educational pathways that will be examined in this project. The educational pathways that will be predicted are as follows: (a) those that confirmed university acceptance; (b) those that confirmed community college acceptance; (c) those that applied to PSE but did not confirm; (d) those that graduated high school but did not apply to PSE and (e) those that left high school early and did not apply to PSE.

Previous research on youth transitions has several limitations. First, studies on school achievement and educational aspirations of immigrants have compared 'immigrant' versus 'non-immigrant' groups. These studies have found few aggregate differences between those born in Canada and those born outside Canada. Such comparisons conceal significant variations among immigrant students that affect the likelihood of PSE participation. Second, post-high school (PHS) planning and preparation are made relatively early in the adolescents educational career yet most studies have employed cross-sectional or retrospective designs that did not adequately consider the effects of important antecedents on students' PHS pathway choices. Third, previous comparative research has not considered differences in immigrant generational status. First generation immigrant youth are those born outside Canada while those considered to be second generation were born in Canada of immigrant parents. To the extent the school experiences and PHS aspirations of each differ, it is important to distinguish first, second (and third) generations. This is especially the case in Toronto where 42% of students are foreign-born and 38% are born in Canada of immigrant parents. Only 20% of TDSB students have both parents born in Canada. These comprise the third generation, sometimes referred to as the 'third plus' generation, and are frequently employed as a reference group in comparative research. (Yau & O'Reilly, 2007). New research, then, is needed that employs cohort data, disaggregates the 'immigrant' designation by source country (region of origin) and home language, and indicates generational status. Moreover, the data needs to contain enough information to construct a comprehensive profile of individual respondents and their home-school contexts to adequately predict choice of PHS pathways.

## **Literature Review (Prepared by Kelli Phythian)**

### INTRODUCTION

Never in Canadian history has higher education been as important as it is today. Jobs that once required little in the way of education or training now demand postsecondary credentials and, with the continual emergence of new technologies, job growth is heavily concentrated in fields that require education-based skills. Recent estimates indicate that the number of manufacturing jobs in Canada was roughly the same in 2007 as it was in 1987, despite the addition of more than 4.5 million jobs to the economy. Meanwhile, employment in professional, scientific, and technical services more than doubled and the support services nearly tripled (Statistics Canada, 2008). These trends reflect a general shift away from the goods-producing industries to the services, which often command higher levels of education and skill. In this expanding “knowledge economy,” it can be expected that this emphasis on postsecondary credentials will continue well in the future.

For most, the key to “good” jobs and higher earnings is the completion of some level of postsecondary education. Nonetheless, significant numbers of Canadian youth do not transition to tertiary education programs after high school. In fact, 2006 census data indicate that about 11 percent of Canadians aged 25 to 34 had not completed high school and another 23 percent had not received a diploma or degree above the high school level. Among those who completed postsecondary studies, 12 percent had acquired an apprenticeship or trade certificate, 26 percent a college diploma, and 38 percent had completed a university program. While some in this age group who had not completed high school or postsecondary programs may do so at a later time, these figures nevertheless have obvious and important implications for labour market prospects and long term social mobility.

Research has shown that there exist clear and important differences among those who attend postsecondary schooling and those who do not, as well as among those who attend university, community college, and vocational schools. In a comprehensive review of Canadian literature,

Cheung (2007) concluded that ethnicity and socioeconomic status are important determinants of high school dropout and postsecondary participation. More specifically, higher levels of parental income and education are positively associated with educational aspirations and expectations. Students from higher income families are more likely to complete high school and attend community college and university. Students from lower income families, on the other hand, are less likely to complete high school and, among those who do, are less prepared academically for higher education. Furthermore, they are less likely to aspire to and enrol in postsecondary studies (see also, Aronson, 2008).

Despite these general trends, there are some groups that are disproportionately represented in low SES households but are highly successful academically. Immigrants, particularly visible minority immigrants, are significantly more likely than native-born whites to live in low-income situations (Kazemipur and Halli, 2001a; 2001b; 2000); yet visible minority immigrant students are considerably more likely to have postsecondary aspirations. Taylor and Krahn (2005), for example, reported that, at age 15, 84 percent of visible minority immigrant girls and 75 percent of boys planned to attend university. Among Canadian-born whites, the figures were 75 percent and 51 percent, respectively. Furthermore, research has shown that these aspirations are realized for some groups but not for others. Finnie and Mueller (2008) reported that the overall postsecondary participation rates of 21 year old immigrants from Africa and Asia exceed 90 percent; however, those from the Americas (excluding the U.S.) attend postsecondary institutions at the considerably lower rate of 62 percent. Among non-immigrants, the postsecondary participation rate was 72 percent. Furthermore, the authors reported considerable variability in terms of the postsecondary pathway selected by various ethnic groups. For instance, university is the pathway of choice among Chinese youth in Canada, while East and Southeast Asians, as well as those from Central and South American countries, are more likely to choose college (Finnie and Mueller, 2008)

As the population of Canada becomes increasingly diverse, understanding the educational trajectories of children from various ethnic groups is of critical importance, given the importance

of postsecondary education to occupational success, financial security, and the pursuit of upward social mobility. Estimates from the 2006 census put the number of visible minority children under the age of 15 at slightly more than 20 percent of the Canadian population. In the Greater Toronto Area, where the bulk of newcomers settle – and where 42 percent of Canada’s visible minority children live – fully one-half of those under age 15 are non-White (Statistics Canada, 2006). The purpose of this study is to investigate the multitude of factors that impact the educational pathways of immigrant and visible minority children after high school, with a specific focus on students in the city of Toronto. As the single largest destination of immigrants to Canada, and as the most diverse city in the country, the question of postsecondary education pathways of students attending the Toronto District School Board (TDSB) has important implications for the integration of immigrants and visible minorities and for their long-term social and economic mobility.

## REVIEW OF LITERATURE

### *Educational Pathways among Youth in Canada*

There are multiple educational pathways that youth will follow. While the great majority of students in Canada complete secondary school, some will not. In 2005/2006, the secondary graduation rate was estimated to be about 75 percent (Blouin, 2008). Of those who graduate, many will enter postsecondary institutions directly out of high school while others – the “gappers” – will delay their studies. Whether the transition to higher education is immediate or delayed, there are important decisions to be made about the type of institution that students will attend. University, community college, and trade-vocational programs each provide opportunities for skill development and labour market preparation, though it is university that is privileged over the others in terms of prestige, employment requirements, and labour market demands. This preference for university is reflected in educational enrolment patterns. In 2004/2005, there were 757,000 students enrolled full-time in Canadian universities, 83.5 percent

of whom were enrolled in undergraduate programs. College was the second most common educational institution, with 514,000 full-time enrolments in 2004/2005. Apprenticeship programs were the least popular, with 268,000 registered students in 2004 (Statistics Canada, 2007).

Entering a postsecondary program immediately following high school and completing one's program of study within the expected time frame is believed to garner the greatest economic and social returns to one's educational investment (Hearn, 1992). To be sure, most students follow this pattern and recent data suggest that direct entrance into a postsecondary institution is most beneficial in terms of labour market outcomes, particularly for university entrants. Data from the 2000 Youth in Transition Survey have shown that, among 20 year old high school graduates, 59 percent had enrolled in a postsecondary program within one year of completing high school, while 19 percent delayed enrolment and 17 percent did not enrol at all (Tomkowicz and Bushnik, 2003). Comparing the early labour market outcomes of 22 to 24 year olds according to their education-to-labour market pathways, Hango (2008) reported that the employment rates and earnings vary considerably depending on the pathway that is followed. High school dropouts were at a clear disadvantage relative other groups, with median weekly earnings of \$480 and an employment rate of 71.4 percent. High school graduates who did not pursue postsecondary studies fared somewhat better, with average earnings at \$500 per week and an employment rate of 79.6 percent. Gappers who completed college or university had considerably better short-term outcomes – employment rates were at 86.2 and 87.5 percent, respectively, while median earnings were \$550 and \$540 per week. Nongappers, on the other hand, were found to have lower employment rates but higher earnings. On average, 85.1 percent of nongappers with a college diploma were employed and they earned 552 per week; among nongappers with a university degree, 79.6 percent were employed and earnings were \$625 dollars per week. It appears, then, that the employment experience gained before entering postsecondary programs might benefit gappers in terms of finding employment, while those who do not take a break benefit from having spent more time in the labour market following college or university completion.

These various educational pathways reflect broader shifts in the timing of the transition to postsecondary institutions during the life course and the age at which young people complete school and enter the labour market (Louie, 2007). No longer is there a seamless transition out of

high school and into the labour force; nor is the typical college or university student one who is aged 18 to 22 years, beginning postsecondary studies immediately after high school. Post-secondary institutions have expanded in order to accommodate the growing demand for higher education (Côté and Bynner, 2008); since the 2001/2002 academic year, university enrolment has increased by 19.2 percent and college enrolment grew by 10.2 percent (Statistics Canada, 2009a; 2009b). An estimated 1.6 million, or nearly two-thirds of Canadians aged 18 to 24 in 2002 had participated in some type of postsecondary educational program following high school (Barr-Telford et al., 2003). Furthermore, increasing numbers are taking time off before beginning postsecondary programs. Estimates from Statistics Canada's Labour Force Survey indicate that the proportion of 25 to 29 year olds attending school full-time nearly tripled between 1978 and 2007, from 3.2 percent to 8.9 percent (Statistics Canada, 2009c). Sweeping economic change in Canada has, for many, altered the sequence of events typically experienced over the life course. The earnings potential of jobs that do not require education beyond high school has declined sharply over the past three decades and, faced with poorer entry-level job prospects, many seek postsecondary credentials – either as youth or adults – in order to access more secure and better paying jobs (Côté and Bynner, 2008).

### *Immigrant Status and Gaps in School Performance*

Shifts in the pursuit of higher education and attendant implications in terms of social and economic mobility pose questions about the pathways of various groups. Young Canadians differ considerably in their educational aspirations, performance, and outcomes. Most notably is the superior achievement among the children of immigrants (see, for example, Boyd and Grieco, 1998; Corak, 2008; Glick and White, 2004; Hum and Simpson, 2007). Generally speaking, Canadian studies indicate that children of immigrant parents are more likely than their third-plus generation counterparts to finish high school, enrol in post-secondary studies, and complete a post-secondary diploma or degree (Driscoll, 1999; Palameta, 2007). Investigation into the educational outcomes of children of immigrants reveals further disparities among first- and second-generation immigrant youth. The term “first generation” refers to all those who are born outside of Canada; however, immigrants who arrive during adulthood or adolescence experience a very different process of adaptation relative to those who arrive as infants or children.



Referred to as the 1.5 generation, immigrants who arrive at a young age spend the lion's share of their school years in Canada. Insofar as schools are key institutions in the incorporation of immigrants, the education trajectories of the 1.5 generation may be superior to those of the first generation, as the former benefits from acquiring language proficiency at a younger age (Holdaway and Alba, 2009). To be sure, research suggests that the educational outcomes of children who immigrated at a young age resemble second generation youth more closely than that of first generation students (Boyd, 2002).

Using data from the 2002 Ethnic Diversity Survey, Abada and Tenkorang (2009) recently reported that, among persons aged 18 to 34, the 1.5 and second generations were 31 and 35 percent more likely to acquire a university education relative to those born to two Canadian-born parents, respectively. Thiessen (2007) reported similar findings using the Youth in Transition Survey. The author reported significant overall differences in post-secondary participation between immigrant and non-immigrant youth with high reading competency. More specifically, immigrant youth were, at age 19, 2.5 times more likely to complete high school and 39 percent more likely to attend university than those born in Canada. Similar findings have been reported in the United States (see, for example, Fuligni and Witkow, 2004). Keller and Tillman (2008), for instance, revealed that, despite experiencing social, economic, and political inequities in the U.S., first- and second-generation youth were significantly more likely to attend college than their third-generation peers with similar socio-demographic characteristics.

Concealed by the broad labels used to define generational status are important disparities in achievement across groups. In particular, research – much of which derives from the United States – has revealed considerable differences in school performance by national origins (Aydemir et al., 2008; Corak, 2008; Levels and Dronkers, 2008; Fry, 2007). Studies consistently show considerable disparities in educational achievement across groups, whereby some outperform the native-born and others tend to have lower achievement. Chinese, Korean, Indian, and Vietnamese students have been found to perform better than native-born Whites, while children and youth from Mexico, Africa, and the Caribbean tend to perform less well (Glick and Hohmann-Marriott, 2007; Glick and White, 2003). Investigating generation differences in college attendance, Keller and Tillman (2008) reported that first- and second-generation youth were significantly more likely to attend college than their native-born peers with similar socio-

demographic characteristics. However, the association between generation status and college attendance was conditional on ethnicity, whereby some groups benefit more from their immigrant status than others. In particular, the odds of attending college for second-generation Chinese and first-generation Black students were 49.5 and 27.8 times higher than U.S. born White students; on the other hand, first- and second-generation Cuban students were significantly less likely to attend college.

Of course, the U.S. immigrant experience cannot necessarily be generalized to other countries. The source country composition of Canada's immigrant population is considerably different from that of the U.S. and access to postsecondary education is more equitable (Abada, Hou, and Ram, 2008; Frenette, 2005). Nonetheless, Canadian studies reveal similar findings, whereby country of origin is a salient factor in the academic performance of immigrant youth (Thiessen, 2009; Abada et al., 2008). Finnie and Mueller (2008) investigated access to postsecondary education among first- and second-generation youth using the Youth in Transition Survey Reading Cohort. Comprised of individuals aged 15 in December 1999, this cohort was followed at two year intervals. Data from 2006, at which time the cohort was age 21, reveal substantial differences in postsecondary access across generations and origins. The authors reported that, relative to third generation Canadian youth, first- and second-generation children of immigrants were more likely to attend university. However, controlling for various demographic and socioeconomic indicators mediates the immigrant effect considerably. In large part, the relatively high education levels of immigrant parents accounts for the educational advantage enjoyed by the first- and second-generations.

In terms of region of origin, Finnie and Mueller (2008) went on to reveal that first- and second-generation youth Chinese, African, and "other Asian" origins were substantially more likely to attend university. The high participation of Chinese youth is staggering. Chinese immigrant youth and Canadian-born Chinese youth were 51 and 44 percentage points more likely to attend university than their third generation classmates, who attended at a rate of 37.7 percent. These groups were also significantly less likely to attend college, due to their high rate of university participation. Just one group was found to have lower postsecondary attendance than third-generation Canadians: first generation immigrants from the Americas (excluding the U.S.). On average, youth from Central and South America attended university at a rate that was about 15

percentage points lower than their third-generation peers. The introduction of sociodemographic control variables was able to explain these attendance gaps for some groups but not for others. For example, the relatively high attendance of first generation African students was rendered nonsignificant after controlling for parental education, while the gaps for Chinese immigrants and those from the Americas changed little. Thus, explanations for the achievement gap relative to the Canadian third-generation vary a great deal by generation status and country of origin. For some, the gap is due to parental education and basic demographic characteristics and for others, the gap cannot be explained by observable factors.

Findings from this study and others highlight the variability in postsecondary access and attainment among immigrants and visible minorities. Not only are there gaps in terms of who attends postsecondary programs, there are considerable differences in terms of the type of institution that is attended. Based on data from the 2002 Ethnic Diversity Survey, Abada and Tenkorang (2009) reported that, among those aged 18 to 34 years, 42 percent who immigrated before age 15 and 39 percent who were born in Canada to immigrant parents had attained a university degree, while 29 and 33 percent had completed college or vocational programs, respectively. In terms of ethnic origins, Chinese and South Asian ethnic groups were found to lead the way in terms of university attainment, at 57 and 47 percent of their respective populations, while considerably fewer Whites (31%) and Blacks (28%) had acquired a university degree. However, Blacks were more likely than other groups to complete college or vocational programs (38%), while Whites were the most likely to not pursue postsecondary studies of any kind (36%).

The exceptionally high educational attainment of Asian immigrant youth – particularly the Chinese – is one that has been featured prominently in the research literature, particularly in the United States. To be sure, the term “model minority” has been used to refer to Asian students as a result of their high degree of educational success (Farley and Alba, 2002; Kao, 1995). The academic success of Chinese students is often attributed to ethnic capital. In particular, characteristics associated with Asian cultures, such as compliance, diligence, industriousness, and an emphasis on the importance of learning, are believed to be the precursors for the exceptional school performance among Chinese youth (Peng and Wright, 1994). Research into

the effects of ethnic capital supports this hypothesis. Based on data from 515 students attending three Chinese-language schools in Calgary, Chow (2004) reported that more than two-thirds of respondents reported an overall average grade of 80 percent or higher. Another 25 percent obtained an average of 70 to 79 percent, and just 36 of the 515 students had achieved an average mark below 70. Interestingly, SES and father's education were not found to significantly impact the achievement of Chinese students. Among the strongest predictors of academic performance were ethnic capital, ethnic self-identification, and Chinese language proficiency.

There has been much attention of late paid to the academic achievement of Black students, particularly in Toronto. In response to low achievement and high dropout rates among Black students in Toronto schools, school trustees approved a proposal to create Canada's first "Black focused" public school in 2008. Recent estimates from the Toronto District School Board (TDSB) indicate that as many as 40 percent of Caribbean-born students and 32 percent of those born in Eastern Africa, and 28 percent of students from Western Africa dropped out of high school (Brown, 2006). The Africentric or Black focused school is intended to close the achievement gap by addressing issues related to student engagement. Black-centered educational programs focus on the experiences, culture, and history of African people that is largely ignored in the delivery of education in Canada and elsewhere (Dragnea and Erling, 2008). While research indicates that Africentric schools have seen improvements in the achievement of Black students in several U.S. school districts (Durden, 2007; Watson and Smitherman, 1996), it remains to be seen if this approach is effective in the Canadian context.

### *Explanations for the Achievement Gap*

#### i. Individual Factors

There is no one explanation for the disparity in academic performance across national origins of first- and second-generation youth. Immigrants today are from an array of socioeconomic backgrounds and, upon arrival, they experience varying degrees of difficulty in the labour market that depends, in part, on where they are from. The negative effect of parental socioeconomic status (SES) on student achievement has been well documented (Frenette, 2007; Finnie et al., 2005). To be sure, parental education and family income are among the strongest predictors of

academic outcomes and they have been found to explain a substantial proportion of the variation in educational performance of youth, including achievement, dropping out, years of education, and obtaining a postsecondary diploma or degree (Kao and Thompson, 2003; Bowlby and McMullin, 2002; Parker et al., 2003). In terms of postsecondary pathways, a number of studies from Canada and elsewhere indicate that young people from low SES families are less likely to complete high school and pursue postsecondary studies (Marks, 2005). Among those who enrol in postsecondary studies, lower SES students are less likely to attend university and more likely to enrol in college and vocational programs than higher SES students (Butlin, 1999; Frenette, 2007). For example, data from the 1991 School Leavers Survey indicate that nearly 70 percent of high school graduates with at least one university-educated parent had attended university, compared to just 30 percent of those whose parents did not have a postsecondary education. On the other hand, students with college-educated parents and parents with a high school diploma or less were twice as likely to attend college or vocational institutions (Butlin, 1999). This relationship between SES and education is particularly important in the case of immigrants; given that many newcomers in Canada are of disadvantaged backgrounds and experience severe economic hardship upon arrival, questions inevitably arise about the school performance of their children and their future educational success.

Research from Canada and the United States indicates that, after statistically controlling for SES, the performance gap between immigrants and the native-born – and between ethnic minorities and whites – will narrow and, in many cases, converge (Bennett and Lutz, 2009; Kao and Thompson, 2003). Controlling for various structural factors, including education levels and occupational prestige of both parents, Thiessen (2009) reported that the disparity in university enrolment between native-born European Canadians and immigrants and non-immigrants of African and Latin American backgrounds narrows. These findings imply that lack of participation in university is due, in part, to socioeconomic disadvantage among these groups. On the other hand, structural factors were found not to account for higher university enrolment among native- and foreign-born East Asians, as controlling for structural factors accentuated their existing education advantage rather than diminishing it to levels comparable to the Canadian-born or European descent. Thus, the post-secondary education attainment of East Asian immigrant youth would in fact be higher if their families enjoyed the same socioeconomic advantage of Canadians.

The superior academic performance and educational attainment of particular ethnic groups in spite of structural disadvantage suggests that having immigrant parents offers protection that keeps youth on a positive educational trajectory. The children of immigrants are a resilient bunch; the adverse socioeconomic situation of many immigrant youth predicts poor school outcomes. For all intents and purposes, one would expect that these youth are at an increased risk for dropping out of high school and failing to pursue higher education. However, it appears that many beat the odds and follow unexpected or “off-diagonal” educational pathways (Eccles, 2008). These unexpected pathways toward educational success among particular immigrant groups is typically attributed to cultural factors having to do with familial relationships, parental expectations and student aspirations (Bankston, 2004; Kao and Tienda, 2005; Szalacha, et al., 2005). Indeed, there is considerable evidence to suggest that parental involvement significantly affects transitions out of high school (Eccles, 2008; Frenette, 2007; White and Glick, 2000). Glick and White (2004), for example, demonstrated that students whose parents have high expectations are more likely to complete high school and pursue postsecondary studies relative to those whose parents hold lower expectations. This relationship was found to persist after controlling for prior academic achievement and socioeconomic status. Parental expectations are thought to translate into higher educational aspirations and among children of immigrants (Taylor and Krahn, 2005), which acts as a buffer against structural disadvantage and results in higher levels of academic achievement and school attainment.

Researchers have further hypothesized that a portion of the gap in achievement by country of origin may be attributed to language proficiency among the first generation (Schmid, 2001). Research has shown that linguistic minority immigrants generally perform less well on literacy tests than those who are proficient in an official language; however, as students acquire language proficiency, the gap narrows and their performance eventually converges with or exceeds that of their English- and French-speaking peers (Worswick, 2004). Using data from the first three waves of the National Longitudinal Survey of Children and Youth, Worswick (2001) investigated the school performance among the school-aged children of immigrants across Canada. School performance was measured using parents’ and teachers’ assessments or reading, writing, and math, as well as standardized test results. Results demonstrated that the children of immigrants whose first language is neither English nor French had lower performance on the two measures of literacy, while performance in mathematics was comparable to that of the children

of Canadian-born parents. However, the reading ability of these children converged over time, suggesting that reading competency increases rapidly among children whose parents with a mother tongue that is not English or French. It was found that, by age 13, children of immigrants performed at least as well as the children of the Canadian-born on all measures of school achievement (Worswick, 2001:13). Worswick (2001) went on to conclude that the children of immigrants in Canada, on average, perform very well in school and that “the success of children from neither English nor French backgrounds is particularly impressive given the challenges that they likely face in adapting to a school system that operates in an unfamiliar language” (p. 14).

Yet, while evidence indicates that children of immigrants who speak neither English nor French will catch up in terms of language ability, sufficient time is needed. Adolescents who enter the Canadian school system with little or no knowledge of English or French may therefore be at a significant disadvantage, given that the time to acquire proficiency before the end of secondary school is short.

Socioeconomic status and proficiency in the charter language are only part of the explanation for the gap in educational outcomes across generations and national origins. Measures of prior academic achievement are strongly connected to postsecondary educational transitions and, as reported above, children of immigrants tend to perform better in school than their third-generation counterparts. Standardized test scores, report card grades, attendance, grade repetition, and tracking or streaming have all been linked to educational pathways, including high school graduation and dropout and the pursuit of community college and university after high school (Carbonaro, 2005; Shaiks et al., 2008). In a comprehensive analysis of Statistics Canada’s 2000 Youth in Transition Survey, Bowlby and McMullen (2002) reported sharp distinctions in the academic achievement of high school graduates and dropouts aged 18 to 20. Dropouts were noticeably more likely than graduates to maintain a “C” or “D” average during their last year of high school and grades in their math and language courses tended to be substantially lower. Furthermore, dropouts were more likely to have repeated a grade during elementary school – more than one-third of boys and one-quarter of girls who had left school without graduating had repeated a grade, while roughly seven and five percent of male and female graduates had experienced grade repetition.

Academic “tracking” or “streaming” (i.e., the stratification of students according to ability) is a practice used in parts of Canada and in many other countries in order to allow students to take courses that best suit their abilities and aptitudes. The practice had been vigorously debated, as opponents point to research demonstrating that students from disadvantaged backgrounds, including poor students and racial minorities, are disproportionately channelled into the low ability streams (Cheung, 2007; Davies and Guppy, 2006; Oakes, 2005). As a result, postsecondary options are limited and social inequality is reproduced. Overall, research has shown that tracking has a positive affect on the academic achievement of high ability groups at the expense of those average- and low- ability students (Ansalone, 2003; 2001). Lower track classes are typically characterized by less experienced teachers and low teacher expectations (Richardson, 1989; Katz, 1999); less challenging curricula and lower level learning materials (Callahan, 2005); and student complaints of boredom and low levels of engagement (Berends, 1995). These factors in turn have detrimental impacts on student achievement and prospects for postsecondary education. Indeed, students enrolled in lower ability streams are less likely to complete high school and pursue and complete postsecondary schooling than those in higher ability tracks (Gamoran and Mare, 1989; Krahn and Andres, 1999).

In the Canadian context, recent research indicates that, in spite of their structural disadvantage, immigrants and visible minorities tend to enrol in higher ability tracks. Krahn and Taylor (2007), for example, investigated the streaming practices in four Canadian provinces, including Ontario, British Columbia, Alberta and Saskatchewan, and revealed that immigrants, visible minorities, and students for whom English or French was a first language were more likely to be in higher ability streams that keep postsecondary options open. Nonetheless, it is important to bear in mind that there may exist differences within groups. Students from specific origin groups, immigrants who arrive during adolescence, as well as those with poor English- or French-language skills may be streamed into lower ability groups as a result of (mis)perceptions about their academic capabilities. Thus, the educational outcomes of first and second generation students from disadvantaged backgrounds may indeed be hindered by their track placement in high school. Further research into the effects of tracking among specific groups is urgently needed, given that streaming has been found to inhibit the educational options of youth after high school.



As demonstrated, explanations for differences in educational outcomes by generation and nativity are many. Segmented assimilation theory posits that immigrant groups will experience divergent pathways of incorporation, depending on origins, race, the capital they possess, and availability of resources in the host society (Portes and Zhou, 1993). The segmented assimilation hypothesis observes that immigrants are incorporated into various segments of society. Some groups experience rapid assimilation into the mainstream, while others experience “downward” assimilation into a racialized underclass. Still others maintain strong ties to their ethnic group while experiencing rapid social mobility. In terms of academic performance, the segmented assimilation model predicts differential outcomes depending on a variety of factors that can be either internal or external to a specific group, such as race, class, spatial segregation, human capital, family structure, and cultural patterns that dictate social relations (Zhou, 1997).

An alternative explanation focuses on immigrant optimism to account for the differential achievement of various immigrant groups (Caplan et al., 1992; Ogbu, 1991). Although their families typically experience economic hardship upon arrival, many children of immigrants nevertheless perform well in school because their parents value education and have high expectations for their academic success. Parental optimism translates into higher educational aspirations among their children and leads them to behave in ways that promote high achievement in school. It would seem that the motivation and effort exerted by immigrants’ children enable them to overcome language barriers and outperform their peers from native-born families (Fuligni, 1997). Furthermore, the 1.5 and second generation can expect to outperform the first generation because, in addition to their parents’ optimism, they benefit from proficiency in the host language. Research has clearly demonstrated that parental involvement and support positively impacts student achievement (Kao, 2004; Szalacha et al., 2005) and a persistent, positive effect of ethnicity after controlling for various background characteristics has been interpreted by many as the high valuation some groups place on academic success (Kao and Tienda, 2005; Portes and Rumbaut, 1996; Caplan et al., 1989). Studies of student and parent attitudes toward school have further supported this hypothesis. Fuligni (1997), for instance, reported that as much as 70 percent of the generational gap in student performance could be attributed to positive attitudes and behaviours of adolescents and their parents toward school

## ii. Beyond the Individual: Neighbourhoods and School Factors

Also important to student achievement, but less studied, is the broader social context that shapes the way in which education is administered and received. Immigrants and ethnic minorities are not evenly distributed geographically. First generation immigrants in particular tend to be concentrated in specific neighbourhoods, meaning that certain schools receive a disproportionate number of immigrant students. As such, the particularities of neighbourhoods and schools are likely to influence, both directly and indirectly, the long-term academic outcomes of their students. In terms of neighbourhood characteristics and their relevance to the academic performance of youth, research has emphasized SES, family structure, mobility, and the concentration of immigrants and racial minorities (Ainsworth, 2002; Brännström, 2008; Garner and Raudenbush, 1991; Turley, 2003). School level influences closely parallel this (Hamnett et al., 2007; Brown-Jeffy, 2006; Bankston and Caldas, 2000). In addition to the demographic and socioeconomic characteristics of the student population, school characteristics believed to influence student achievement include tracking practices, school size, and teacher quality (Ainsworth, 2002; Hallinan, 2004; Marks, 2006; Willms and Chen, 1989).

When considering the ways in which school and neighbourhood characteristics impact educational pathways, theorists have emphasized in particular the importance of socioeconomic conditions as well as ethnic or racial segregation (Crosnoe, 2005; Epps, 1995; Portes and MacLeod, 1996). Upon arrival, immigrants often face economic hardship that lead many to settle in disadvantaged neighbourhoods characterized by poverty, which are in turn characterized by disrupted families, negative peer influences, violence, and resource deficient schools (Zhou, 2002). As a result, students living in lower SES neighbourhoods and those who attend lower SES schools tend to perform less well on standardized tests (Ainsworth, 2002; Thompson, 2002); they have higher dropout rates and are less likely to pursue postsecondary schooling (Garner and Raudenbush, 1991; Vartanian and Gleason, 1999). Moreover, the school experience for students in less affluent communities tends to be less rewarding (Battistich et al., 1995), and teachers tend to be less experienced (Barr, 2005).

Overall, research has supported school and neighbourhood explanations of student achievement. After establishing substantial group differences in achievement across ethnicity and nativity, Pong and Hao (2002) investigated the relative importance of both neighbourhood- and school-level characteristics on the self-reported grade point average (GPA) of more than 17,000 students attending 127 U.S. schools. Results indicated that the achievement disadvantage of Mexican, Cuban, and Puerto Rican immigrants' children relative to third-generation whites could be explained, in part, by unfavourable neighbourhood and school conditions. Unfavourable neighbourhood factors include lower SES and greater proportions of foreign-born persons and those limited English-proficiency, while negative school factors include larger class sizes, a poor school climate, and enrolment in public schools. The authors further revealed that neighbourhood characteristics were more important to the academic performance of immigrants' children than to the children of natives. At the school level, Portes and MacLeod (1996) further reported that the achievement of both second- and third-generation students in the United States is influenced by family SES as well as the average socioeconomic level of schools.

### *Concluding Remarks*

In sum, existing research indicates that there are multiple explanations for the divergent educational outcomes of youth across generations and origins. Some groups can be expected to display educational advantages, which may be attributed to favourable socioeconomic conditions, cultural attitudes that promote success. Other groups are likely to experience poorer academic outcomes as a result of poverty, geographic segregation, or school-level characteristics that impede educational success. While individual characteristics are undoubtedly connected to school performance in important ways, they are unable to completely account for generation- and nativity-differences in the postsecondary pathways of Canadian youth. The purpose of this study is to investigate the ways in which not only individual differences but also school and neighbourhood factors shape the educational decisions of youth after high school using comprehensive data from Canada's largest school board and most popular destination of immigrants: Toronto.

## **Methodology**

### **Data**

The main source of data used in this study is the year 2000 Grade 9 cohort of students who began high school in the TDSB in September 2000 and were tracked through the TDSB until fall 2006. The data includes more than 18,469 respondents. Of these, 2,220 students transferred to another educational system outside the TDSB sometime between Fall 2000 and Fall 2006, leaving a base of 16,249 students tracked in the cohort until Fall 2006. The data will be made available for the project by Robert Brown, Research Coordinator for the TDSB.

The primary design variable in the TDSB data file combines country of origin and home language to indicate both immigrant group membership and generational status. The former consist of the most populous (6) region-of-origin groups and the latter comprise those who are ‘Canadian’ but speak either English or some other language at home.

The TDSB administrative data also contains a wealth of information relating to the academic achievement of every student in the cohort. For example, in addition to graduation status (i.e., whether the student graduated by 2006), the TDSB data includes detailed information on the courses each student has taken during each year of study (including ESL), the students’ educational program of study (e.g., whether they are enrolled in academic, applied, or essentials programs of study), course grades, and credit accumulation. We can also assess whether the respondents started high school on time or a year late (using the age variable), and if the student entered their high school from within the TDSB. The data also allows us to track whether students changed schools and residences during the period of investigation.

School-level variables available in the dataset include school size, ethnic or language concentration within each school, and a variable derived by the TDSB called the Learning Opportunities Index (LOI). The LOI is used to rank schools in terms of the social and economic characteristics of their school populations. It was developed by the TDSB in 1999 to ensure that appropriate funding allocations would be made to schools identified as “challenged.” Since we also have access to the respondents’ residential information during each year of study, it is

possible to create neighbourhood-level variables (e.g., LICO; income, ethnic composition etc.) by merging TDSB data with from the 2006 Canadian Census using the students' residential postal codes.

The PHS outcomes of these students was obtained by matching data from the Ontario universities Applications Centre (OUAC) and the Ontario College Application Centre (OCAS) with the TDSB Student Information System for the Year 2000 Grade 9 cohort. The OUAC and OCAS data from the 2004, 2005, and 2006 applications cycles are used to identify applications made to programs (e.g., arts, commerce, engineering, social sciences, etc.) in Ontario universities or community college or, in many cases, both, as well as confirmations of an offer of acceptance from an Ontario university or community college.

It may also be possible to acquire registration data (i.e., if the student is formally registered at a postsecondary institution the following year) from OUAC and OCAS; however, we cannot confirm that we will have access to that information at this time. The OUAC and OCAS data will be made available through the TDSB and acquired for the project through Robert Brown.

### **Development of PSE Outcomes & Research Sample**

The PSE pathways defined for use in this study consist the following combinations of PSE applications and confirmations together with the number of respondents who comprise the research or working sample:

1. University	7,000	(43.8)
2. College	2,260	(14.1)
3. Gappers	1,193	( 7.5)
4. HS grad	1,625	(10.2)
5. Dropout	3,897	(24.4)
6. TOTAL	15,975	

274 respondents (1.7% of 16,249) who were still in school – dropped from the research sample

## **Specification of Variables Employed**

The administrative dataset contains a series of variables that measure a variety of socio-demographic characteristics, including gender, region of birth, language, family status, and the age at which each student entered high school. Region of birth distinguishes between seven regions, including Canada, Europe, English speaking Caribbean, Africa, South Asia, West Asia and Eastern Africa. Respondents born in Canada are further divided into two groups: those who speak English at home and those who do not. First generation immigrant status was thus defined as being foreign-born, second generation as being born in Canada but not speaking English in the home, and third generation as being born in Canada and speaking English in the home. Family status measures the family situation of students in their third year of high school and categorized into two groups: those who live with both parents and those who do not. Finally, a variable based on age was included as an indication of whether students began high school at the expected time or if they began late.

As noted above, a variety of studies have documented the negative impact of poverty on student achievement (United Way of Greater Toronto and the Canadian Council on Social Development, 2004; Ornstein, 2000). To capture poverty, a variable that measures the proportion of people in the respondent's immediate neighbourhood that fall below the low income cutoff is included. This variable was derived from student postal codes that were matched with their dissemination area (DA): the proportion of the population living below the low income cutoff, as reported by the 2001 Census, was assigned to each student based on the DA in which they lived. The variable is coded in deciles by the TDSB, such that value 1 indicates the highest incidence (proportion) of residents living below the poverty line, whereas 10 indicates that lowest incidence of residents living below the poverty line. Hence, a higher score means that a respondent lives in a more affluent neighbourhood.

Finally, three independent variables that provide information on various aspects of schooling at the student level were included. The first variable reflects streaming within secondary school. Streaming refers to the majority of courses taken in grades nine and ten, and is employed to classify the student's program of study as Academic, Applied, or Essentials. Under the Ontario secondary school curriculum introduced by the Ministry of Education in the Fall of 1999,

students are to choose a program of study that includes grades nine and ten courses that are classified as Academic (university-directed), Applied (college-directed), or locally-developed Essentials (workplace-directed). As with previous studies, the present analysis categorizes a student's program of study as academic, applied, or essentials based on the majority of courses taken in grades nine and ten.

The second independent variable indicates whether or not a student is considered to be "at risk." A student is classified as "at risk" if he or she had completed fewer than seven courses by the end of grade nine. Lastly, the third variable distinguishes between students who have taken English as a second language (ESL) courses and those who did not<sup>1</sup>. This variable also represents a proxy for language proficiency.

### **Descriptive Statistics**

The descriptive statistics for the variables to be used in the analysis are discussed in Rob Brown's power point presentation (see related .ppt file).

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<sup>1</sup> When the cohort study started in Fall 2000, the Ontario curriculum provided ESL-ESD courses (English as a Second Language/English as a Second Dialect). Since then, 'ESD' has been changed to 'ELL', English Language Literacy. The vast majority of courses were ESL, and we will refer to all ESL-ESD-ELL courses as 'ESL' in this paper.

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