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# Educational Pathways and Academic Performance of Youth of Immigrant Origin in Toronto

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## Foreword

This working paper is based on a wider pan-Canadian comparative project titled *Educational Pathways and Academic Performance of Youth of Immigrant Origin: Comparing Montreal, Toronto and Vancouver* that was coordinated by Professor Marie McAndrew, Université de Montréal. Edited versions from *Educational Pathways and Academic Performance of Youth of Immigrant Origin: Comparing Montreal, Toronto and Vancouver* appear in this working paper and consist of a literature review and general methodological considerations that informed the larger pan-Canadian project, followed by a detailed description and analysis of educational pathways and academic performance among students in the 2000 Grade 9 Toronto District School Board (TDSB) cohort. The sections within this working paper correspond with edited and modified versions of Chapter 1 and 3 of the full pan-Canadian report.

The full report was funded by a contribution from the Canadian Council on Learning and Citizenship and Immigration Canada. It also received support from the Canada Research Chair on Education and Ethnic Relations (funded by SSHRC). It can be accessed at http://www.ccl-cca.ca/pdfs/OtherReports/CIC-CCL-Final12aout2009EN.pdf or at www.chereum.umontreal.ca or the National Metropolis website or one of the local Metropolis websites and is also available in paper format from the Canada Research Chair on Education and Ethnic Relations, CP 3744, 6128, succursale centre-ville, Montréal, QC, Canada H3C 3J7, 514-343-6111, extension 1-4052.

# Educational Pathways and Academic Performance of Youth of Immigrant Origin in Toronto

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## EXECUTIVE SUMMARY

This paper examines the educational pathways of a cohort of students who started high school in fall 2000 within the Toronto District Board of Education (TDSB) and is derived from a larger pan-Canadian study of students in Montreal, Toronto, and Vancouver who were expected to graduate in 2004 if they did not experience delays. To account for all students, the study continued to fall 2006. Descriptive data on similar individuals, schooling processes, and school-context characteristics, as well as common indicators of educational pathways and academic performance, are presented for English-speaking students and for 10 linguistic subgroups.

Male students – those who entered high school a year older than the average age, those who moved between schools, those who come from socio-economically disadvantaged backgrounds, and those who attended socio-economically disadvantaged schools – were less likely to graduate, regardless of language. The fact that ESL instruction for non-English speakers is negatively associated with graduation suggests that such assistance is not sufficient to attain necessary achievement levels. Immigrant students whose language is not English were more likely to graduate; however, being an English-speaking immigrant (especially one from the Caribbean) is a risk factor. Being enrolled in a school with a high level of non-English speakers is positively associated with graduation.

Achievement in key curricular areas of Mathematics, English, and Science is essential for graduation. The university program has the largest enrolment and represents the preferred pathway for English and non-English speaking students. English-speaking students' enrolment in these senior courses was less than that of non-English speaking students, particularly in Mathematics. When linguistic subgroups were examined, Chinese-speaking students had both very high participation rates and achievement levels, while the more academically at-risk groups including Portuguese-, Spanish-, and Somali-speaking students.

Results according to Canadian-born students and those born in certain key regions were also examined. Participation trends indicated higher enrolment by foreign-born students in a foreign-born group. Those born in East Asia were high achievers in all subjects. Eastern European students also did well in English. Students from the Caribbean region had comparatively low levels of participation and achievement.

This study enabled us to profile basic dimensions of vulnerability among non-English-speaking and newcomer youth in the TDSB. The identification of vulnerable groups and of the specific risk factors underlying vulnerability within each group provides the basis for a strategic use of resources to improve the conditions that will enhance academic engagement and achievement. For instance, students from the Caribbean are significantly more likely to enter school one year late, live in alternative family structures, find themselves placed in non-academic streams, and be at risk of not completing their course of study. Many of these risk factors respond interventions that involve working effectively with schools and family. Special transition-year programs could also be considered for students who enter a school late in order to meet their needs and improve their adaptation to the social and academic life of Canadian schools. For example, "buddy" or mentor systems were found to work well in the Host program funded by Citizenship and Immigration Canada; these could be introduced and periodically evaluated. School counsellors could be called upon to work alongside of buddies and mentors to address issues of adaptation and school risk factors noted in our analysis of dropout rates.

Another program that has had very promising results is Pathways to Education. This program started in the Regent Park area of the TDSB at about the same time that this cohort study was conducted, and has expanded to several other areas in Toronto such as Lawrence Heights. This program evaluates all students graduating from grade 8 into grade 9 and provides an arsenal of supports for all students in the area while they are in a Toronto secondary school. The program is not specifically targeted at immigrant youth, but it is worth studying to see what would work best with high-risk immigrant youth populations. By working closely with the families, some success may be achieved in supporting and encouraging these vulnerable youth.

**KEYWORDS:** educational pathways, academic performance, majority language, linguistic subgroups

## ACKNOWLEDGEMENTS

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## INTRODUCTION

In a context in which equal opportunity has emerged as a fundamental normative benchmark, schools in modern democratic societies are expected to foster the academic success of a diverse student population, with regard to their abilities, interests, and social, linguistic, and cultural characteristics (McEwen, 1995; Crahay, 2000). Fostering such success is a significant challenge in Canada. While provincial school systems tend to stream students on different educational pathways rather late in the overall schooling process, at least when compared with other countries (Conseil des Ministres d'éducation du Canada, 2003), Canada pursues an active immigration policy, which has many consequences for education.

The number of immigrants entering the country every year (236,578 in 2007) has significantly increased over the past 15 years (CIC, 2008). These immigrants come from a more diversified range of countries, and also from countries that do not have French or English as their official language.[1] The selective nature of the Canadian immigration policy also results in a relative class-balanced composition of the population of incoming immigrants each year, which stands in contrast with other societies where immigration is less planned (McAndrew, 2004).

Discrepancies between expected and achieved educational attainments or pathways among immigrant youth – particularly where differences exist between youth from different backgrounds – must be scrutinized. Indeed, for immigrant parents, successful integration into a new country is often assessed, not so much by their current situation, but according to the quality of relationships that their children are able to establish with the school system, and most of all, the return they get from their education in the longer run.

Qualitative research, based on in-class and in-school observation or on surveys with teachers, students, or parents, suggests that the academic integration of first-, and even second-generation immigrant youth in Canada is not without flaws, particularly for new arrivals who do not have French or English as their mother tongue, and students belonging to visible minorities (McAndrew & Cicéri, 1997; Beiser et al., 1998; Anisef & Kilbride, 2001). However, few large-scale quantitative studies have assessed the current state of academic performance and educational pathways of immigrant students in the Canadian context (Anisef et al., 2004).

This dearth can largely be explained by the fact that education falls under ten provincial and three territorial authorities, each with its own educational structures, policies, and programs, as well as its own way of collecting educational data. Although these bodies exchange information and cooperate through the Council of Ministers of Education, Canada, there has never been a systematic comparative study of their approaches or their results regarding the academic integration of immigrant students. Both at the provincial and school board levels, the interest in large-scale assessments of academic performance and educational pathways of immigrant or minority students is fairly new.[2]

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[1] With the exception of Quebec, where immigrants with a prior knowledge of French now represent more than 60% of the total influx.

[2] With the exception of the Toronto Board of Education, the Toronto District School Board, and, to a lesser extent, the Ministère de l'Éducation, du Loisir et du Sport du Québec.

Some national data, either collected regularly or periodically through sampled studies (Statistiques Canada, 2008; Bussière et al., 2004), have been used to fill some of the gaps in knowledge, but they present shortcomings. When the focus is on final attainments, as is the case with Statistics Canada's data collection, limited information is provided on the educational pathways that students follow and the specific obstacles they encounter during their formal mandatory schooling. In contrast, studies, such as those carried under the framework of the Program for International Students Achievement (PISA), provide valuable information on the competencies of immigrant students. However, they do not indicate if the strengths and weaknesses were conducive to a successful school career, nor do they take into account the fact that a substantial proportion of underprivileged immigrant youth may have dropped out of school by age 15, when most of the tests are carried out. The contribution of such studies to the identification of the factors that influence school performance is limited, specifically with regard to factors that influence policy development.

The current study originated from a commitment by Citizenship and Immigration Canada (CIC) and a group of Metropolis researchers to explore what could be learned from provincial or local data banks to define a pan-Canadian project on the academic performance and educational pathways of youth of immigrant origin. Two feasibility studies were conducted (Anisef et al., 2004; Hébert et al., 2005), covering four provinces (Quebec, Ontario, British Columbia, and Alberta). The researchers conducted a critical assessment in terms of both the relevance and the comparability of indicators that could be used to define the target group and assess its results.

The researchers also examined the extent to which these data had been exploited, either by educational authorities or academics. The main conclusions were that provincial data banks represented a relevant and underused source for an assessment of the topic and that although each had strengths and weaknesses, the data from some provinces,[3] or, in some instances, metropolitan school boards,[4] should be explored first for the wealth of information they could provide. The authors also proposed a *lowest common denominator approach* for defining a comparative project, as well an alternative, less encompassing strategy, which served as the basis for defining the main components of the current study.

**Main components**

The final project was launched in 2007, and was limited to three of the four contexts that were initially examined (i.e. Quebec, Ontario, and British Columbia). Furthermore, given the limited availability of data available on an Ontario-wide basis, the focus was shifted to the three major immigrant-receiving cities in Canada: Montreal, Toronto, and Vancouver. The information for Montreal and Vancouver were extracted from province-wide data banks and that for Toronto from the Toronto District School Board. In order to ensure comparability between three school systems in which high school entrance and duration time differ, we adapted the cohort to reflect each site-specific schedule. Thus the target group for the study is students who were expected to graduate in the three cities in 2004, if they had followed the "normal" path, e.g., those who started high school in 1999 in Montreal and Vancouver, and in 2000 in Toronto.

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[3] Quebec and British Columbia.

[4] Toronto District School Board (TDSB).

The study has three components. First, a set of descriptive data common to the three sites was developed. The criterion used is the language spoken at home, since no information is available in Vancouver on immigrant status (whether the student was born in Canada or not). Due to time and resource limitations, we chose to focus on students whose parents had indicated that the language spoken at home was not the language of the majority school system (that is, non-French speakers in Montreal and non-English speakers in Toronto and Vancouver).[5]

After setting the local context and giving an overview of related provincial or school board studies, each site report examined the educational pathways and academic performance of non-French/non-English speakers through a set of tables presenting various characteristics of the target group, the comparison group, and 10 selected language subgroups, as well as their comparative educational pathways and academic performance. In all cases, we used common variables, with some specific additional information in some contexts, defined through a lengthy process that took into account both the limits of the data banks and the objective of furthering comparability as much as possible.

The second component is a multivariate regression analysis (with the same target group and comparison group, but a limited number of subgroups, using two dependent variables: graduation rates two years after the expected date and access to university-bound or selective courses. The characteristics of various groups in the first component were used as independent variables, although in some instances slightly modified, to identify the factors that influence the schooling experience of non-English/non-French speakers and various subgroups.

Finally, in Montreal and Toronto, descriptive tables similar to those produced for the three sites were developed using immigrant status (that is, whether the student was born in Canada or not) to define the target and comparison groups. Data on six subgroups based on region of origin are also provided. An analysis of both characteristics and outcome trends are presented. Due to time and resource limitations, it was not possible to carry out a multivariate regression analysis for the data on the two sites. As indicated in the foreword, only data from the Toronto site report are provided in this working paper.

## REVIEW OF RELEVANT LITERATURE

Unlike other social categories, such as gender or social class, ethnicity does not have an easy-to-predict, unidirectional relationship with achievement. Even when one specifically focuses on markers associated with migration, Canadian and international literature clearly illustrates the wide variety of educational profiles and experiences that can be associated with various subgroups defined by any of these markers.

This complex reality is sometimes masked in societies in which immigration and poverty are closely linked, but in contexts in which immigration is more class-balanced, such as Canada and the United States, variability is the norm. Consequently, identifying the factors that explain

[5] This was not an option for Toronto, as we were using TDSB data. In Montreal, although English schools receive some ethnic minority students, they have almost no immigrants and fewer and fewer second-generation students because of Bill 101. In Vancouver, the French school system is limited in scope and does not receive many immigrant or second-generation students.

differences in academic achievement and educational pathways among immigrant or minority youth is one of the main objectives of this research.

There are many such explanations, some complementary, some contradictory. Socio-economic theories stress the close relationship between socio-economic status and school results, both in the whole school population (Haveman & Wolfe, 1994; Bradley & Corwin, 2002) and among immigrant students (Portes & Zhou, 1993; Portes, 1994; Zady & Portes, 2001; Zhou & Lee, 2007). This school of thought identifies poverty as the main explanatory factor in school failure, as it would generally be associated with a deficit of cultural capital among families, and with a lack of active involvement in the educational promotion of their children. It also shows the contribution of schooling to the segmented assimilation of different groups of immigrants.

However, other research shows that social-economic status (SES) does not have the same overwhelming impact among immigrant youth as it does for the general student body. Even among immigrants with a high socio-economic status, the mastery of the language of schooling is a lengthy process. Thus factors such as age at arrival or the prior exposure to the host language cannot be overlooked (Collier, 1989; Cummins, 2000). Linguistic competencies have a particular impact on disciplines with strong linguistic and cultural components, such as History and Literature. The latter presents greater challenges for students whose first language is not the language of schooling than does the study of scientific disciplines such as Mathematics or Physics (Chamot & O'Malley, 1994; Duff, 2001).

At the same time, many Canadian and European studies show that underprivileged immigrants or second-generation students tend to outperform equally disadvantaged native peers (Vallet & Caillé, 1996; Toronto Board of Education, 1999; McAndrew, 2001). Some explain this phenomenon by suggesting that immigrants represent a subsample of particularly motivated individuals, and family pressures may be placed on students to succeed in order to fulfil their parents' dreams. Nevertheless, as this migratory effect is inconsistent, a variety of socio-cultural explanations have been invoked.

Ogbu (1992) and Ogbu & Simmons (1998) stress, as the main factor explaining differences, the existence of a conflictual or a positive relationship with the host society and the integration model it proposes. Individuals belonging to involuntary minorities, such as groups whose presence in the host country is the result of conquest, colonialism (or neo-colonialism), or slavery, may distrust majority institutions and the dominant culture and may not believe that schooling can really be a way out of poverty. By contrast, individuals belonging to voluntary minorities, such as immigrants who choose to settle in the new country for socio-economic reasons, may believe in social mobility through schooling and consider the obstacles they encounter as temporary. In order to foster the scholastic success of their children, they would forgo linguistic and cultural maintenance, as they see schooling as the route to success in life.

Others have focused on the characteristics of the home country culture, especially the values linked with school success, even in our modern school system: conformism, respect for authority, hard work, and the valorization of the written word (Chow, 2004; Peng & Wright, 1994; Samuel et al., 2001). In some communities, therefore, ethnicity would be a strong cultural capital generating many practices, both in the family and within the community, conducive to school success.

Finally, other studies have insisted on the importance of systemic factors, such as the reaction of the school system and of specific schools towards immigrants in general and towards various sub- groups (Dei, 1996; Gillborn & Gipps, 1996; Johnson & Acera, 1999). This school of thought focuses on the impact of teachers' attitudes towards and expectations for the success of various students; these attitudes may be influenced by an unstated pecking order reflecting national and international dynamics. Researchers have also examined indicators of institutional discrimination, such as the variance between schools with similar characteristics, as well as early streaming of immigrant students into less prestigious courses and programs.

In our study, we touch on many of these systems of explanation, but in a non-systematic manner. Indeed, the variables we use in our model were not selected for their theoretical relevance, but because this information was collected by provincial or local educational authorities. The strength of the study lies in its approach to pre-migratory and linguistic factors as well as the schooling process and school characteristic variables. However, the study is more limited in its use of SES indicators, and most of all, its capacity to grasp socio-cultural phenomena.

Our methodology cannot assess different factors that could be hidden under the variables of language or region of origin, such as family practices, strategies, and values, or positive or conflictual relations with schooling. With regard to systemic factors, the study provides an extensive set of indicators at a macro or mezzo level, such as whether the schools are private- or public-sector, the extent to which they face an educational challenge, or the concentration of the target group they experience. However, we cannot identify *which* practices or attitudes explain the differences in results between them.

Nevertheless, our endeavour sheds light on the state of academic performance and educational pathways among students who do not speak the majority language at home and, to a lesser extent, among immigrant students, as well as on many factors that influence these outcomes.

## DESCRIPTION OF THE RESEARCH

While roughly 17% of Canada's population is made up of immigrants, the figure is over 47% in Toronto. More recent analyses of the student population in the TDSB (Yau & O'Reilly, 2007) show that 30% of students in grades 7 and 8 were born outside Canada and 42% of students in grades 9 to 12 were born outside the country. However, the proportion of parents of students in grades 7 to 12 who were born outside Canada is much higher – families in which both parents are foreign-born account for 71% of the total; this figure rises to 80% if families in which only one parent is foreign-born are included. This finding indicates the extremely large number of second-generation students in the TDSB. Given the non-European background of most recent immigrants, these figures also indicate the very diverse nature of TDSB schools.

### Descriptive Data

The Toronto cohort numbered 16,019 students who, in 2000, entered grade 9 in the TDSB. Of these, 6,370 (40%) indicated the first language spoken in their home was not English. This group comprised the "target group" in our study. The remaining 9,649 students were designated the "comparison" or "reference" group.

Among the target group, Chinese-speakers were the most numerous (23%) followed by the South Asian languages Tamil (9%) and Urdu (6%). Russian speakers and Persian speakers accounted for 6% and 5% of the target group, respectively. Together these five groups make up approximately half the target group. The remaining non-English-speaking language groups consisted of Spanish (4%), Vietnamese (4%), Arabic (2%), Portuguese (2%), and Somali (4%). Definitions of variables employed in descriptive and regression analyses are listed in Figure 1.

**Figure 1**
**Variable definitions:**
**Characteristics of the target group, the comparison group and subgroups**

**Socio-economic and demographic variables**

1) Gender:
   - Male / Female
2) SES:
   - Median family income in enumeration area inhabited by students (divided into five quintiles)
3) Immigrant status:
   - Born in Canada/Outside Canada

**Schooling process variables**

4) Age at entry to high school:
   - Students early/on time/1 year late/2 years late (ref.: expected "normal" age of entry in TDSB)
5) Level of entry into the school system

| | | | |
|---|---|---|---|
| **Toronto** | Students already in TDSB data bank in primary or junior high | Newcomers entering high school from Canada (can include inside or outside Ontario) | Newcomers entering high school from outside Canada |

6) Frequency of school changes:
   - No school change, one or more school change(s)
7) Taking English as a second language or English as a second dialect (ESL/ESD) courses
8) School context variables
9) Concentration of non-English speakers in school. Percentage of students in a school with:

| | | | | |
|---|---|---|---|---|
| 0-25% | 26-50% | 51-75% | More than 76% | Of the target group (non-English) |

10) Attendance at a school defined as socio-economically "challenged"

Since the 1960s, City of Toronto school boards have allocated funding to schools based on the social and economic characteristics of their school population. The Learning Opportunity Index (LOI) was developed in 1999. It looks at the "external challenge" faced by the schools. Variables are calculated in the same way for all 472 elementary schools and 111 secondary schools over multiple years. In 2006-2007, the LOI variables were:

- average and median income of families with school-aged children;
- parental education level;
- proportion of lone-parent families;
- housing type (apartment, single detached housing);
- recent immigrant;
- student mobility.

In the following section we organize the discussion of tables into three sub-topics: social structures and personal characteristics, risk factors and school context. These correspond to the three categories of socio-demographic characteristics, schooling process variables, and school characteristics used in the reports from the two other sites.

**Social structures and personal characteristics**

The following tables provide information on basic social structural features and personal characteristics of the various language group members. Table 1 shows that, by high school, there was more gender variation in enrolment among non-English speakers. Assuming roughly 50/50 gender balance at entry, the male-female differences at graduation provides some indication of the importance of socialization influences on retention through the school years.

The economic situation of students' families is indicated by income (see Table 2). The information in this table raises the issue of declining incomes among recent immigrants and the implication (in extreme cases) that "living in poverty" has a detrimental effect on immigrant children's well-being. The most recent research suggests income convergence with the native-born is indeed difficult to achieve, but that relatively few children of immigrants spend long periods of time (three or more years) in poverty or, more specifically, living below Statistic's Canada Low Income Cut-Off (LICO) measure.

In Table 1 we also include a cross-tabulation of language groups with immigrant status to indicate the significant growth in Toronto's immigrant school-age population as well as the linguistic diversity of recent immigrants. Linguistic diversity is apparent also among a significant number of children who were born in Canada. Many, perhaps most, of these individuals will be second-generation immigrants.

### *Gender*

In Table 1, we examine variations in gender across non-English speakers and English speakers. We found that while approximately 48% of non-English speakers were female, which is a very close percentage with that of English speakers, there are gender variations across our 10 subgroups, ranging from 57% of Vietnamese and 51% of Persian being female to approximately 43% of Portuguese and Arabic speakers being female.

**Table 1**
**Language used at home: Gender, Toronto**

| Language used at home | Male | | Female | |
|---|---|---|---|---|
| | N | % | N | % |
| **Non-English speakers** | | | | |
| All | 3,334 | 52.3 | 3,036 | 47.7 |
| Subgroups | | | | |
| Chinese | 780 | 54.2 | 659 | 45.8 |
| Tamil | 312 | 52.0 | 288 | 48.0 |
| Urdu | 188 | 52.2 | 172 | 47.8 |
| Russian | 185 | 50.5 | 181 | 49.5 |
| Persian | 143 | 48.8 | 150 | 51.2 |
| Spanish | 135 | 53.1 | 119 | 46.9 |
| Vietnamese | 102 | 43.2 | 134 | 56.8 |
| Arabic | 71 | 56.3 | 55 | 43.7 |
| Portuguese | 76 | 56.7 | 58 | 43.3 |
| Somali | 120 | 51.9 | 111 | 48.1 |
| **English speakers** | 4,977 | 51.6 | 4,672 | 48.4 |

### *Socio-economic status*

Postal codes for students were matched with dissemination area (DA) level information in the 2001 Census for median family income; median family income was then broken down into quintiles and applied to each of our 10 non-English subgroups. In examining the lowest median-income category (quintile) displayed in Table 2, almost 27% of all subgroups fell within this lowest income group; this contrasts with 15% of all English speakers who fell into this lowest-income group.

In examining the language subgroups, we found that Somalis, Tamils, and Vietnamese were disproportionately represented in the lowest income group, while the Chinese and Portuguese were underrepresented. In fact, these language groups were similar to English speakers.

**Table 2**
**Language used at home: Median family income in EA of residence, Toronto**

| Language used at home | Lowest | | Low | | Medium | | High | | Highest | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | | | | | |
| All | 1,644 | 26.7 | 1,551 | 25.2 | 1,354 | 22.0 | 952 | 15.5 | 647 | 10.5 |
| Subgroups | | | | | | | | | | |
| Chinese | 220 | 15.7 | 283 | 20.2 | 356 | 25.5 | 310 | 22.2 | 229 | 16.4 |
| Tamil | 239 | 41.1 | 143 | 24.6 | 132 | 22.7 | 55 | 9.5 | 12 | 2.1 |
| Urdu | 132 | 37.8 | 115 | 33.0 | 64 | 18.3 | 27 | 7.7 | 11 | 3.2 |
| Russian | 81 | 22.8 | 128 | 36.1 | 64 | 18.0 | 42 | 11.8 | 40 | 11.3 |
| Persian | 65 | 23.3 | 91 | 32.6 | 51 | 18.3 | 42 | 15.1 | 30 | 10.8 |
| Spanish | 73 | 29.7 | 57 | 23.2 | 60 | 24.4 | 34 | 13.8 | 22 | 8.9 |
| Vietnamese | 93 | 41.3 | 51 | 22.7 | 42 | 18.7 | 32 | 14.2 | ** | ** |
| Arabic | 24 | 20.2 | 45 | 37.8 | 23 | 19.3 | 18 | 15.1 | ** | ** |
| Portuguese | 22 | 16.7 | 42 | 31.8 | 40 | 30.3 | 19 | 14.4 | ** | ** |
| Somali | 94 | 43.5 | 69 | 31.9 | 35 | 16.2 | ** | ** | 11 | 5.1 |
| **English speakers** | 1,393 | 14.9 | 1,460 | 15.6 | 1,928 | 20.6 | 2075 | 22.1 | 2,521 | 26.9 |

** Fewer than 10 students.

### *Birthplace*

Table 3 shows that among children in the TDSB who spoke a language other than English in the home, 74% were foreign-born. Among these (first-generation) immigrant children, 75% spoke a language other than English in the home. Among non-English speakers, Chinese, Spanish, Vietnamese, and Portuguese groups were those with the highest proportion of children born in Canada, ranging from 43% to 62%. These represent the more established immigrant groups. In contrast, Somali, Russian, Persian, and Tamil groups were more recent arrivals – for each group, fewer than 8% of the children were born in Canada. Among Somali-speaking children, virtually none were born in Canada.

**Table 3**
**Language used at home: Birthplace, Toronto**

| Language used at home | Born in Canada | | Born outside Canada | |
|---|---|---|---|---|
| | N | % | N | % |
| **Non-English speakers** | | | | |
| All | 1,565 | 26.2 | 4,405 | 73.8 |
| Subgroups | | | | |
| Chinese | 484 | 34.1 | 935 | 65.9 |
| Tamil | 35 | 5.9 | 557 | 94.1 |
| Urdu | 56 | 16.0 | 295 | 84.0 |
| Russian | 10 | 2.9 | 338 | 97.1 |
| Persian | 22 | 8.1 | 249 | 91.9 |
| Spanish | 90 | 43.5 | 117 | 56.5 |
| Vietnamese | 121 | 51.5 | 114 | 48.5 |
| Arabic | 20 | 19.0 | 85 | 81.0 |
| Portuguese | 81 | 61.8 | 50 | 97.3 |
| Somali | ** | ** | 213 | 97.3 |
| **English speakers** | 8,016 | 84.3 | 1,489 | 15.7 |

** Fewer than 10 students.

## Risk factors

The following tables describe various risk factors associated with membership in the TDSB language groups selected. Table 4 describes the age at which students entered high school. Being older than the standard age upon entry to grade 9 in the TDSB was not necessarily a function of late arrival and registration, but of cumulative disadvantages while in the elementary system. Some of the delay likely reflects the time required to become proficient in the language of classroom instruction. Therefore, being one year late in entry to secondary school is seen as a risk factor for eventual graduation.

Table 5 identifies the origins of the various groups at high school entry. This refers to whether students transferred directly from the TDSB elementary system, transferred from another Canadian school system, or entered after arrival from another country. Entering from within the TDSB system is assumed to indicate a degree of institutional continuity and stability in the progression to high school. The frequency with which students changed schools during their secondary schooling suggests greater mobility among recently arrived immigrants, likely associated with the settlement process. While most children can adapt to some changes, too much mobility introduces uncertainty and disrupts their study patterns and habits. Table 6 indicates the frequency of school changes by the languages spoken by students at home.

Finally, Table 7 shows involvement in ESL instruction at the secondary level. Acquiring facility with the English language is a priority among recent arrivals and reaching a level of language competence that allows one to study effectively takes time. For those who have a language limitation, their academic studies and progress are at risk.

### *Age when entering high school*

Table 4 indicates that approximately 8% of the students entered one year late and shows variations among subgroups. Chinese, Tamil, and Vietnamese students were less likely to enter late (all groups being under 6%), while Somali students were most likely (12.6%). Spanish-speaking students and Arabic-speaking students were also more likely to enter late.

**Table 4**
**Language used at home: Age when entering high school, Toronto**

| Language used at home | Early | | On time | | 1 year late | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | |
| All | 82 | 1.3 | 5,813 | 91.3 | 475 | 7.5 |
| Subgroups | | | | | | |
| Chinese | 13 | 0.9 | 1,344 | 93.4 | 82 | 5.7 |
| Tamil | ** | ** | 559 | 93.2 | 35 | 5.8 |
| Urdu | ** | ** | 326 | 90.6 | 25 | 6.9 |
| Russian | ** | ** | 341 | 93.2 | 24 | 6.6 |
| Persian | ** | ** | 264 | 90.1 | 24 | 8.2 |
| Spanish | ** | ** | 231 | 90.9 | 23 | 9.1 |
| Vietnamese | ** | ** | 220 | 93.2 | 14 | 5.9 |
| Arabic | ** | ** | 110 | 87.3 | 11 | 8.7 |
| Portuguese | ** | ** | 123 | 91.8 | 11 | 8.2 |
| Somali | ** | ** | 197 | 85.3 | 29 | 12.6 |
| **English speakers** | 104 | 1.1 | 8,974 | 93.0 | 571 | 5.9 |

** Fewer than 10 students.

### *Level of entry into the school system*

Table 5 indicates that 80% of students entered the TDSB from elementary schools within the TDSB and the remaining 20% entered either from another Canadian jurisdiction or as immigrants. About 11% of the total enrolment is identifiable as being of immigrant origin. Of those entering from other Canadian jurisdictions, an unknown proportion would also be immigrants. For example, Table 3 shows that no Somali children were born in Canada, but in Table 5, 75% of newcomer Somalis came from another Canadian jurisdiction.

**Table 5**
**Language used at home: Level of entry into the school system, Toronto**

| Language used at home | In TDSB elementary | | Newcomers from inside Canada | | Newcomers from outside Canada | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | |
| All | 5,071 | 79.6 | 691 | 10.8 | 608 | 9.5 |
| Subgroups | | | | | | |
| Chinese | 1,247 | 86.7 | 94 | 6.5 | 98 | 6.8 |
| Tamil | 532 | 88.7 | 42 | 7.0 | 26 | 4.3 |
| Urdu | 267 | 74.2 | 34 | 9.4 | 59 | 16.4 |
| Russian | 272 | 74.3 | 40 | 10.9 | 54 | 14.8 |
| Persian | 239 | 81.6 | 23 | 7.8 | 31 | 10.6 |
| Spanish | 193 | 76.0 | 47 | 18.5 | 14 | 5.5 |
| Vietnamese | 202 | 85.6 | 31 | 13.1 | ** | ** |
| Arabic | 93 | 73.8 | 12 | 9.5 | 21 | 16.7 |
| Portuguese | 97 | 72.4 | 31 | 23.1 | ** | ** |
| Somali | 183 | 79.2 | 36 | 15.6 | 12 | 5.2 |
| **English speakers** | 7,875 | 81.6 | 1668 | 17.3 | 106 | 1.1 |

** Fewer than 10 students.

We found the proportions of English and non-English speakers who arrived directly from the elementary system to be essentially the same (80%). Four non-English-speaking groups have a relatively high proportion of newcomers – Urdu, Spanish, Arabic, and Portuguese. These groups vary in their origins – either from within or outside Canada. Those transferring from another Canadian jurisdiction include a high proportion of Portuguese (23.1%) and Spanish newcomers (18.5%), while among Arabic- and Urdu-speaking newcomers, about 16% in each group came from outside Canada.

### *Frequency of school changes (within 4 years of entering grade 8)*

Table 6 indicates that a greater proportion of non-English speakers (31%) compared with English speakers (24%) experienced mobility during their high school career, changing schools one or more times. The Persian, Arabic, and Russian groups were the most likely non-English-speaking groups to change schools once or more. In contrast, less than one-quarter of the Portuguese and Tamil students changed school once or more.

**Table 6**
**Language used at home: Frequency of school changes**
**(within 4 years of entering grade 8), Toronto**

| Language used at home | No school change | | One or more school changes | |
|---|---|---|---|---|
| | N | % | N | % |
| **Non-English speakers** | | | | |
| All | 5,112 | 80.6 | 1,277 | 19.4 |
| Subgroups | | | | |
| Chinese | 1,220 | 85.1 | 214 | 14.9 |
| Tamil | 480 | 80.5 | 116 | 19.5 |
| Urdu | 286 | 79.7 | 73 | 20.3 |
| Russian | 299 | 82.4 | 64 | 17.6 |
| Persian | 203 | 69.8 | 88 | 30.2 |
| Spanish | 192 | 76.2 | 60 | 23.8 |
| Vietnamese | 184 | 78.6 | 50 | 21.4 |
| Arabic | 87 | 69.0 | 39 | 31.0 |
| Portuguese | 108 | 80.6 | 26 | 19.4 |
| Somali | 163 | 71.2 | 26 | 28.8 |
| **English speakers** | 7,760 | 80.7 | 1,858 | 19.3 |

### *ESL/ELD courses in high school*

While the participation of students in English as a second language/English literacy development courses (ESL/ELD) is likely higher at the elementary than at the secondary level, we were unable to determine the involvement of non-English speakers in such courses at the elementary level. However, Table 7 provides data on TDSB students who completed at least one ESL/ESD courses or half-courses at the secondary level.

The table shows that 19.1% of all non-English speakers were enrolled in ESL/ELD courses in grade 9. There was some variation in participation among non-English-speaking groups: the Persian, Russian, and Urdu groups were most likely to participate in ESL/ELD courses, while the Vietnamese and Portuguese were least likely.

**Table 7**
**Language used at home: ESL/ELD courses in high school, Toronto**

| Language used at home | Yes | | No | |
|---|---|---|---|---|
| | N | % | N | % |
| **Non-English speakers** | | | | |
| All | 1,215 | 19.1 | 5,155 | 80.9 |
| Subgroups | | | | |
| Chinese | 285 | 19.8 | 1,154 | 80.2 |
| Tamil | 123 | 20.5 | 477 | 79.5 |
| Urdu | 86 | 23.9 | 274 | 76.1 |
| Russian | 92 | 25.1 | 274 | 74.9 |
| Persian | 83 | 28.3 | 210 | 71.7 |
| Spanish | 27 | 10.6 | 227 | 89.4 |
| Vietnamese | 8 | 3.4 | 228 | 96.6 |
| Arabic | 27 | 21.4 | 99 | 78.6 |
| Portuguese | 12 | 9.0 | 122 | 91.0 |
| Somali | 29 | 12.6 | 202 | 87.4 |
| **English speakers** | 201 | 2.1 | 9,448 | 97.9 |

## School context

Table 8 shows the levels of each language group in schools that vary according to their concentration of non-English speakers. Schools range from 0-25% non-English speakers to schools with 76-100% non-English speakers. Schools also vary in the socio-economic resources their students possess or to which they have access. To assess this, we used the TDSB Learning Opportunities Index (LOI), which aggregates several measures of family social and economic capital including income, family structure (single-parent families), housing type, level of parental education, and immigrant status.

We assumed that schools with high concentrations of non-English speakers would have a more difficult instructional task and children attending schools with a low Learning Opportunity Index would not benefit from the peer effects conferred by a student body that possesses both social and economic resources. Positioning each language group in our study along both language and socio-economic dimensions of schools allows us to gauge the relative advantage obtained by the members of these groups.

### *Concentration of non-English speakers*

The majority of all non-English speakers attended schools with a concentration of 50-75% non-English speakers (54%). This contrasts with 38% of English speakers attending these schools.

Also within this category of schools, we find a range among non-English speakers, from a low of 46.1% for Russian and a high of 71.4% for the Portuguese student group.

In the highest concentration category (76-100%), we also found large differences among the 17.5% non-English-speaking students – varying from 0% for Portuguese to a high of 27.3% for Arabic students. Relatively few non-English-speaking students were enrolled in schools attended primarily by English-speaking students – that is, those with non-English concentrations of from 0-25%.

**Table 8**
**Language used at home: Concentration of non-English speakers in school attended, Toronto**

| Language used at home | 0 - <25% | | 26 - <50% | | 51 - <75% | | 76 - 100% | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | | | |
| All | 330 | 5.3 | 1,451 | 23.5 | 3,325 | 53.8 | 1,080 | 17.5 |
| Subgroups | | | | | | | | |
| Chinese | 51 | 3.6 | 229 | 16.2 | 770 | 54.5 | 362 | 25.6 |
| Tamil | 17 | 2.9 | 88 | 14.9 | 365 | 62.0 | 119 | 20.2 |
| Urdu | ** | ** | 80 | 23.2 | 169 | 49.0 | 89 | 25.8 |
| Russian | 21 | 5.9 | 87 | 24.3 | 165 | 46.1 | 85 | 23.7 |
| Persian | 13 | 4.5 | 56 | 19.4 | 146 | 50.7 | 73 | 25.3 |
| Spanish | 27 | 10.7 | 78 | 31.0 | 132 | 52.4 | 15 | 6.0 |
| Vietnamese | ** | ** | 51 | 22.1 | 175 | 75.8 | ** | ** |
| Arabic | ** | ** | 27 | 22.3 | 57 | 47.1 | 33 | 27.3 |
| Portuguese | ** | ** | 32 | 24.1 | 95 | 71.4 | ** | ** |
| Somali | 22 | 9.6 | 44 | 19.1 | 150 | 65.2 | 14 | 6.1 |
| **English speakers** | 1,640 | 17.2 | 3,489 | 36.6 | 3,641 | 38.2 | 763 | 8.0 |

** Fewer than 10 students.

### *External challenge of the school*

When we examined schools facing the greatest external challenges, we see in Table 9 that a much higher percentage of English-speakers (29%) than non-English speakers (16%) were enrolled in schools attended by students from the more advantaged backgrounds. Conversely, 24% of all non-English students were enrolled in highly challenged schools versus just under 10% of English-speaking students.

Of our 10 non-English speaker groups, the highest proportions attending highly challenged schools were the Vietnamese, Somali, and Portuguese. In contrast, fewer Chinese and Tamil students were enrolled in highly challenged schools.

**Table 9**
**Language used at home: External challenge of school attended, Toronto**

| Language used at home | Lowest | | Low | | Medium | | High | | Highest | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | | | | | |
| All | 1,029 | 16.6 | 1,155 | 18.7 | 1,537 | 24.8 | 982 | 15.9 | 1,483 | 24.0 |
| Subgroups | | | | | | | | | | |
| Chinese | 320 | 22.7 | 388 | 27.5 | 370 | 26.2 | 139 | 9.8 | 195 | 13.8 |
| Tamil | 14 | 2.4 | 161 | 27.3 | 163 | 27.7 | 122 | 20.7 | 129 | 21.9 |
| Urdu | 15 | 4.3 | 55 | 15.9 | 75 | 21.7 | 80 | 23.2 | 120 | 34.8 |
| Russian | 90 | 25.1 | 56 | 15.6 | 100 | 27.9 | 12 | 3.4 | 100 | 27.9 |
| Persian | 55 | 19.1 | 50 | 17.4 | 71 | 24.7 | 50 | 17.4 | 62 | 21.5 |
| Spanish | 30 | 11.9 | 20 | 7.9 | 64 | 25.4 | 62 | 24.6 | 76 | 30.2 |
| Vietnamese | ** | ** | 10 | 4.3 | 37 | 16.0 | 57 | 24.7 | 118 | 51.1 |
| Arabic | 10 | 8.3 | 18 | 14.9 | 38 | 31.4 | 25 | 20.7 | 30 | 24.8 |
| Portuguese | 11 | 8.3 | ** | ** | 16 | 12.0 | 47 | 35.3 | 53 | 39.8 |
| Somali | ** | ** | 16 | 7.0 | 53 | 23.0 | 60 | 26.1 | 94 | 40.9 |
| **English speakers** | 2,794 | 29.3 | 2,156 | 22.6 | 2,220 | 23.3 | 1,426 | 15.0 | 937 | 9.8 |

** Fewer than 10 students.

## Comparative Educational Pathways and Academic Performance

In this section we consider the academic performance of the various language groups. Table 10 shows graduation rates across three time periods – 4 years, 5 years, and 6 years. Year 4 is considered the average time needed to graduate. We also compare dropout rates among the various groups. We have also traced trends in completion across the language groups. We contrast this information with comments on the (cumulative) profile of dropouts. We include counts and proportions of those who remained in school after year 6 and those who had transferred out of the system. This information is used to adjust the dropout figures we report.

Tables 11a and 11b, 12a and 12b, and 13a and 13b show participation and achievement indicators for the key subjects of Mathematics, English, and Science.

Subject areas are further differentiated by four "programs of study" that indicate curriculum differences as well as the intended postsecondary or labour market goals of the individual. These programs are known as university, mixed, college, and workplace pathways. Participation is first described for two pathways – a university and an aggregation of the other three. This approach distinguishes academic from vocational training or workforce entry pathways. Achievement is then compared for the various language groups differentiated by their chosen post-high-school pathway – university, mixed, college, or workplace. Those in the mixed category are enrolled in

courses that prepare them for entry to either a university or college. Those opting for the workplace program of study expect to enter directly into the workforce.

***Graduation and drop-out rates***

Overall graduation rates were essentially the same for English (49%) and non-English (50%) speakers at year 4. This similarity continued across the three-year graduation period (year 4 to year 6) which finds, by year 6, that about 65% of the cohort had graduated. A somewhat higher proportion of non-English speakers transferred out of the TDSB. This finding reflects the higher level of mobility among newcomers noted in the discussion of Table 10, which includes immigrant status. About 2% of students in both English-speaking and non-English-speaking groups remained in the TDSB after 6 years. Thus qualified, the dropout rates for the English-speaking group were only somewhat higher (23%) than those of non-English-speaking groups (21%).

**Table 10**
**Language used at home: Graduation rates and educational pathways, Toronto**

| Language used at home | Graduated within TDSB | | | | | | Cumulative | Still in TDSB | Transferred to another educational jurisdiction | | Dropped out | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | On time | | 1 year after expected | | 2 years after expected | | | | | | | |
| | N | % | N | % | N | % | % | N | N | % | N | % |
| **Non-English speakers** | | | | | | | | | | | | |
| All | 3,656 | 49.9 | 887 | 12.1 | 1,517 | 2.5 | 64.5 | 130 | 951 | 13.0 | 1,517 | 20.7 |
| Subgroups | | | | | | | | | | | | |
| Chinese | 1,014 | 65.4 | 168 | 10.8 | 199 | 1.9 | 78.1 | 29 | 112 | 7.2 | 199 | 12.8 |
| Tamil | 366 | 55.4 | 98 | 14.8 | 120 | 1.7 | 71.9 | ** | 61 | 9.2 | 120 | 18.2 |
| Urdu | 203 | 44.6 | 62 | 13.6 | 80 | ** | 60.0 | ** | 95 | 20.9 | 80 | 17.6 |
| Russian | 229 | 50.8 | 52 | 11.5 | 76 | ** | 63.6 | ** | 85 | 18.8 | 76 | 16.9 |
| Persian | 145 | 38.3 | 37 | 9.8 | 93 | 3.4 | 51.5 | ** | 86 | 22.7 | 93 | 24.5 |
| Spanish | 84 | 29.0 | 36 | 12.4 | 105 | 5.5 | 46.9 | 13 | 36 | 12.4 | 105 | 36.2 |
| Vietnamese | 114 | 44.7 | 343 | 13.3 | 68 | 4.3 | 62.3 | ** | 19 | 7.5 | 68 | 26.7 |
| Arabic | 64 | 38.6 | 17 | 10.2 | 36 | ** | 53.6 | ** | 40 | 24.1 | 36 | 21.7 |
| Portuguese | 40 | 27.0 | 24 | 16.2 | 59 | ** | 47.3 | ** | 14 | 9.5 | 59 | 39.9 |
| Somali | 86 | 32.3 | 39 | 14.7 | 96 | ** | 49.6 | ** | ** | ** | 96 | 36.1 |
| **English speakers** | 5,197 | 48.7 | 1,422 | 13.3 | 2,490 | 2.8 | 64.8 | 238 | 1027 | 9.6 | 2,490 | 23.1 |

** Fewer than 10 students.

There is little difference, then, in the proportion of graduates or dropouts among English and non-English speakers, either in the trends across year 4 to year 6 or cumulatively. Variation in these indicators is, however, apparent among non-English speakers. Some groups required more time to acquire the credits needed to graduate. Nevertheless, by year 6, about two-thirds of all students had graduated.

Considerable variation exists in the dropout rates of certain non-English-speaking groups. The dropout rate is particularly high among Spanish, Portuguese, and Somali students (over 30%).

***Participation and performance in selected topics***

*English*

Table 11a shows that, for non-English speakers, participation in university-bound and other English courses was 68% and 17%, respectively. Among English speakers, 63% were enrolled in a university program English course and 23% in another category of English course. In both language groups, 14% of students had not enrolled in a senior English course or had dropped out. Among non-English speakers, Chinese students had the highest participation in the university programs, while Portuguese and Spanish speakers had the lowest participation rate. The latter groups had correspondingly higher enrolments in English courses in the other category – slightly more than one-third of each group.

**Table 11a**
**Language used at home: Participation in grade 12 English courses, Toronto**

| Language used at home | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | |
| All | 4,348 | 68.3 | 1,094 | 17.2 | 928 | 14.6 |
| Subgroups | | | | | | |
| Chinese | 1168 | 81.2 | 144 | 10.0 | 127 | 8.8 |
| Tamil | 441 | 73.5 | 97 | 16.2 | 62 | 10.3 |
| Urdu | 244 | 67.8 | 64 | 17.8 | 52 | 14.4 |
| Russian | 273 | 74.7 | 44 | 12.0 | 49 | 13.4 |
| Persian | 172 | 58.7 | 56 | 19.1 | 65 | 22.2 |
| Spanish | 109 | 42.9 | 86 | 33.9 | 59 | 23.2 |
| Vietnamese | 152 | 64.4 | 42 | 17.8 | 42 | 17.8 |
| Arabic | 85 | 67.5 | 22 | 17.5 | 19 | 15.1 |
| Portuguese | 53 | 39.6 | 49 | 36.6 | 32 | 23.9 |
| Somali | 107 | 46.3 | 62 | 26.8 | 62 | 26.8 |
| **English speakers** | 6,080 | 63.0 | 2,204 | 22.8 | 1,365 | 14.1 |

**Table 11b**
**Language used at home: Performance in grade 12 English courses, Toronto**

| Language used at home | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Non-English speakers** | | | | |
| All | 71.4 | ** | 58.4 | 52.6 |
| Subgroups | | | | |
| Chinese | 74.3 | ** | 57.6 | 48.3 |
| Tamil | 69.7 | ** | 57.8 | ** |
| Urdu | 71.1 | ** | 60.6 | ** |
| Russian | 74.2 | ** | 62.9 | ** |
| Persian | 71.4 | ** | 61.9 | ** |
| Spanish | 63.9 | ** | 54.6 | ** |
| Vietnamese | 69.1 | ** | 59.9 | ** |
| Arabic | 68.3 | ** | 50.8 | ** |
| Portuguese | 62.5 | ** | 57.9 | ** |
| Somali | 64.9 | ** | 57.8 | ** |
| **English speakers** | 71.8 | ** | 58.0 | 56.2 |

** Fewer than 10 students.

Information on achievement by program of study is limited by students' enrolment in English courses associated with either the university or the college program. In both programs, achievement variation across language groups was less than that found in either Mathematics or Science. The averages of English and non-English groups were essentially the same in both university and college programs.

Among non-English groups enrolled in a university-program English course, Chinese- and Russian-speaking students had somewhat higher levels of achievement than the other groups, but several of these had attained the average level or higher. The averages of Portuguese and Somali speakers enrolled on the university program were somewhat lower.

*Mathematics*

Table 12a shows that 56% of non-English-speaking and 40% of English-speaking students were enrolled in a Mathematics course associated with the university program of study. Among non-English-speakers, university Mathematics is preferred to the other programs of study (29%), that is, Mathematics courses associated with the college or workplace program of study. Among English speakers, the workplace program is only slightly more attractive than the university program option (44%).

Among the non-English-speaking subgroups, Chinese and Tamil groups had high levels of participation in university Mathematics courses. Students who spoke Portuguese or Spanish had

the lowest level of enrolment in a university Mathematics courses. These groups also had the highest level of participation in other Mathematics courses. Among those groups who were least likely to have enrolled in or most likely to have dropped out of a senior-level Mathematics course were Spanish, Portuguese, and Somali speakers.

Table 12b compares the Mathematics achievement of the various language groups across the four programs of study – university, mixed, college, and workplace. There appears to be little or no difference in achievement between English and non-English speakers across programs of study. However, differences between the programs of study are marked. Those in the mixed category perform less well than the university students, suggesting many are unlikely to succeed.

**Table 12a**
**Language used at home: Participation in grade 12 Mathematics courses, Toronto**

| Language used at home | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | |
| All | 3,557 | 55.8 | 1,845 | 29.0 | 968 | 15.2 |
| Subgroups | | | | | | |
| Chinese | 1,103 | 76.7 | 219 | 15.2 | 117 | 8.1 |
| Tamil | 402 | 67.0 | 140 | 23.3 | 58 | 9.7 |
| Urdu | 197 | 54.7 | 109 | 30.3 | 54 | 15.0 |
| Russian | 221 | 60.4 | 98 | 26.8 | 47 | 12.8 |
| Persian | 125 | 42.7 | 105 | 35.8 | 63 | 21.5 |
| Spanish | 56 | 22.0 | 119 | 46.9 | 79 | 31.1 |
| Vietnamese | 124 | 52.5 | 64 | 27.1 | 48 | 20.3 |
| Arabic | 58 | 46.0 | 48 | 38.1 | 20 | 15.9 |
| Portuguese | 26 | 19.4 | 66 | 49.3 | 42 | 31.3 |
| Somali | 70 | 30.3 | 99 | 42.9 | 62 | 26.8 |
| **English speakers** | 3,839 | 39.8 | 4,271 | 44.3 | 1,539 | 15.9 |

**Table 12b**
**Language used at home: Performance in grade 12 Mathematics courses, Toronto**

| Language used at home | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Non-English speakers** | | | | |
| All | 67.4 | 49.4 | 55.6 | 58.3 |
| Subgroups | | | | |
| Chinese | 70.9 | 47.8 | 58.3 | 61.1 |
| Tamil | 64.6 | 40.2 | 55.4 | 56.8 |
| Urdu | 65.0 | 52.3 | 59.6 | 60.4 |
| Russian | 69.8 | 54.1 | 59.4 | 71.2 |
| Persian | 64.8 | 52.2 | 60.7 | 62.4 |
| Spanish | 58.1 | 47.0 | 53.7 | 61.1 |
| Vietnamese | 64.1 | 42.6 | 58.5 | ** |
| Arabic | 63.4 | 45.2 | 54.5 | ** |
| Portuguese | 58.6 | 51.0 | 46.5 | 49.1 |
| Somali | 57.2 | 46.0 | 50.6 | 47.6 |
| **English speakers** | 65.8 | 52.4 | 56.7 | 57.5 |

** Fewer than 10 students.

It appears that the relative Mathematics performance of the various language groups does not vary much across the four programs of study. That is, the relative achievement of members of any particular language group is similar, irrespective of the program of study. Some groups performed better than others. Chinese and Russian university program students' average achievement was higher than the aggregate of non-English speakers and considerably higher than Somali, Spanish, or Portuguese speakers. The latter groups also have among the lowest levels of Mathematics achievement in the other programs of study.

*Science*

Table 13a shows that enrolment in Science courses is lower across the various language groups than English courses, although not Mathematics courses. Enrolment in university-program Science courses is 61% among non-English speakers and 51% among English speakers. In non-university programs of study, only three language groups exceed 20% enrolment – Spanish, Portuguese, and Somali speakers.

The number of students not taking any Science courses is much higher than is the case with either Mathematics or English. Among non-English speakers, the proportion not enrolled in a senior-level Science course is 28%, while among English speakers it is 33%. Among non-English speakers, the groups with the highest level of non-participation in Science are the Portuguese- and Spanish-speaking students.

While achievement is reported for all four programs of study in Table 13b, low enrolment in the mixed and workplace programs limits our discussion of achievement across language groups to those enrolled in University and College programs. Achievement levels do not differ between English and non-English speakers in both programs of study. Overall achievement in the college program is approximately 10% below that in the university program.

In the university program, the achievement levels of Chinese- and Russian-speaking students were higher than those of the other groups. Somali- and Portuguese-speaking students' achievement levels were much lower. Within the college program, Urdu and Persian speakers had the highest achievement levels, although these levels do not differ greatly from those of other groups enrolled in this program. For example, Chinese, Spanish, and Arabic speakers all attained or exceeded the 60% level. The remaining groups had similar levels of achievement – between 50% and 55%.

**Table 13a**
**Language used at home: Participation in grade 12 Science courses, Toronto**

| Language used at home | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Non-English speakers** | | | | | | |
| All | 3,861 | 60.6 | 751 | 11.8 | 1,758 | 27.6 |
| Subgroups | | | | | | |
| Chinese | 1122 | 78.0 | 102 | 7.1 | 215 | 14.9 |
| Tamil | 422 | 70.3 | 52 | 8.7 | 126 | 21.0 |
| Urdu | 216 | 60.0 | 44 | 12.2 | 100 | 27.8 |
| Russian | 230 | 62.8 | 24 | 6.6 | 112 | 30.6 |
| Persian | 138 | 47.1 | 49 | 16.7 | 106 | 36.2 |
| Spanish | 74 | 29.1 | 52 | 20.5 | 128 | 50.4 |
| Vietnamese | 138 | 58.5 | 22 | 9.3 | 76 | 32.2 |
| Arabic | 66 | 52.4 | 21 | 6.7 | 39 | 31.0 |
| Portuguese | 43 | 32.1 | 28 | 20.9 | 63 | 47.0 |
| Somali | 90 | 39.0 | 54 | 23.4 | 87 | 37.7 |
| **English speakers** | 4,892 | 50.7 | 1,615 | 16.7 | 3,142 | 32.6 |

**Table 13b**
**Language used at home: Performance in grade 12 Science courses, Toronto**

| Language used at home | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Non-English speakers** | | | | |
| All | 67.2 | 63.8 | 57.5 | 57.7 |
| Subgroups | | | | |
| Chinese | 70.9 | 63.5 | 60.5 | 58.1 |
| Tamil | 64.4 | ** | 54.4 | ** |
| Urdu | 65.8 | ** | 62.4 | ** |
| Russian | 69.8 | ** | 54.3 | ** |
| Persian | 65.1 | ** | 62.2 | ** |
| Spanish | 61.1 | ** | 59.4 | 54.3 |
| Vietnamese | 65.4 | ** | 55.2 | ** |
| Arabic | 65.5 | ** | 58.3 | ** |
| Portuguese | 58.9 | ** | 54.2 | ** |
| Somali | 56.8 | ** | 51.8 | 61.9 |
| **English speakers** | 66.0 | 63.6 | 57.8 | 55.1 |

** Fewer than 10 students.

## MULTIVARIATE REGRESSION ANALYSIS

### Graduation rates two years after expected

Table 14 shows all students in the TDSB cohort[6] and compares the graduation level among English and non-English-speaking participants, while distinguishing among the five most common language groups in the TDSB: Chinese, Tamil, Urdu, Russian, and Persian. An additional language category is included to capture all other non-English-speaking respondents. The main question is: how do the target group and various language subgroups perform with respect to the comparison group when controlling for differences in students and school characteristics?

[6] Approximately 10% of the cohort left the TDSB for another school board. Since we were unable to track the education records of these students after leaving the TDSB, we removed them from the analysis. Our final sample, including some missing data, is thus for 12,633 students.

**Table 14**
**Graduation: Differences between target group (non-English speakers) and subgroups and comparison group (English speakers) with or without control variables, Toronto**

N = All target and non target: 12,633

| Variables | Model 1 empty model | | Model 2 only target group | | Model 3 with control variables | | Model 4 only target subgroups | | Model 5 with control variables | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig |
| **Language group variable** (ref. English) | | | | | | | | | | |
| ▪ All non-English | | | 1.26 | *** | 1.35 | *** | | | | |
| **Language subgroup variables** (ref. English) | | | | | | | | *** | | *** |
| ▪ Chinese | | | | | | | 2.08 | *** | 2.04 | *** |
| ▪ Tamil | | | | | | | 1.52 | *** | 1.68 | *** |
| ▪ Urdu | | | | | | | 1.35 | *** | 1.57 | ** |
| ▪ Russian | | | | | | | 1.30 | | 1.54 | ** |
| ▪ Persian | | | | | | | 0.73 | * | 0.87 | |
| ▪ Other non-English-speaking | | | | | | | 0.84 | * | 0.90 | |
| **Variance of random intercept s2u** | 0.51 | *** | 0.51 | *** | 0.34 | *** | 0.43 | *** | 0.32 | *** |
| **Intra-class correlation (% of total variance at school level)** | 13.0% | | 13.0% | | 9.0% | | 12.0% | | 9.0% | |
| **% of school level variance explained by model** | | | 0.0% | | 30.7% | | 7.60% | | 30.7% | |

*** Significant at < 0.001 ** Significant at < 0.01 * Significant at < 0.05

Model 1 identifies the proportion of variation in the response variable attributable to school-level characteristics. It is valuable for estimating the magnitude of variation between schools in graduation levels using an unconditional model without any predictors at either level (Model 1). The key estimate in this model is the intra-class correlation ($\rho$) which indicates that approximately 13% of the variation in the outcome is attributable to school-level characteristics ($p<.001$). Since the random effect is statistically significant ($p<.001$) in every model, we include a random effect at level-2 for all of the models estimated in Table 14.

The "fixed-effects" regression estimates in models 2 through 5 are presented as odds ratios. The only fixed-effect estimate provided in Model 2 reveals that non-English-speaking respondents are more likely to graduate than English-speaking respondents ($p<.001$). This estimate is statistically significant at the same level in Model 3, where control variables are included. The individual-level control variables include immigrant status, sex, age at entry, whether the respondent has taken ESL classes, whether the respondent had changed schools, whether the respondent arrived from outside the TDSB, and the median family income of the respondent. The school-level variables include a variable that captures the percentage of students in the

respondent's school who speak English, and a variable that identifies whether the respondent is in a high school identified by the Toronto District School Board as challenged. The estimates for the control variables have been removed from the table, but are available upon request.

Model 4 compares graduation levels among English-speaking respondents and each group of non-English-speaking respondents. The effect of the language variable is statistically significant ($p<.001$), and the parameter estimates reveal that high school students who speak Chinese are most likely to graduate, followed by those who speak Tamil, and then by those who speak Urdu. Students in these language groups are more likely to graduate than their English-speaking counterparts ($p<.001$), whereas the odds of graduating among Russian, Persian, and other non-English-speaking students are comparable with English-speaking students.

The estimates for each language group in Model 5 are interpreted as the odds of graduating, relative to English-speaking respondents (the reference category), after controlling for the individual- and school-level variables included in Model 3. The pattern and magnitude of the estimates are similar to those in Model 4. The key exception is the estimate for students who speak Russian which becomes statistically significant ($p<.001$) when the control variables are added to the model. This finding likely indicates that students in this language group are disadvantaged relative to English-speaking students in terms of socio-demographic and school characteristics.

**The impact of socio-demographic, schooling process, and school characteristics**

This section identifies which factors influence the probability of graduating among the target group and various subgroups. Table 15 compares the graduation levels among non-English-speaking respondents. Model 1 reveals that the random component is statistically significant ($p<.001$), indicating that approximately 11% of the total variability is attributable to level 2 (school). Thus, the random component is also included in Model 2. When other variables were controlled for, the language group variable was statistically significant ($p<.001$).

The estimates reveal that, with the exception of Persian-speaking students, respondents from each of the top four language groups were more likely to graduate ($p<.001$) than students who spoke another non-English language – the reference category. The pattern of the estimates indicated that Chinese-speaking students were most likely to graduate from the TDSB, followed by students who speak Tamil, Urdu, and Russian, respectively. Among the control variables, immigrant students were more likely to graduate than their native-born counterparts ($p<.01$), and females were more likely to graduate than males ($p<.001$). Not unexpectedly, those who entered the school board late were less likely to graduate than those who entered the system on time ($p<.001$).

Arrival from outside the TDSB school board did not have a significant impact on graduation among non-English-speaking respondents, when controlling for the other variables in the model; however, the impact of median family income did improve the odds of graduating from a school in the TDSB ($p<.001$). Among school-level characteristics, non-English speakers were more likely to graduate if they attended a school in which most students (>75%) did not speak English. This may be because these schools make a special effort to accommodate non-English speakers or because the particular school has a concentration of a particular language group that offers

additional social support. Generally, however, large concentrations of non-English-speaking students make the teaching task more difficult in schools in which the language of instruction is necessarily English.

**Table 15**
**Graduation: Impact of language group, socio-demographic, schooling process and school level variables (target group), Toronto**

N= All target: 3,706

| Variables | | Empty model | | Full model | |
|---|---|---|---|---|---|
| | | | | Odds ratio | Sig |
| Language subgroups (ref. Other non-English speakers) | Chinese | | | 3.01 | *** |
| | Tamil | | | 2.44 | *** |
| | Urdu | | | 2.12 | *** |
| | Russian | | | 2.25 | *** |
| | Persian | | | 1.20 | |
| Socio-demographic | Female (ref. Male) | | | 1.91 | *** |
| | Median family income | | | 1.01 | *** |
| | Immigrant (ref. Born in Canada) | | | 1.32 | * |
| Schooling process | Late upon entry (ref. Early or on time) | | | 0.37 | *** |
| | Changed school (ref. No) | | | 0.33 | *** |
| | ESL in high school (ref. No) | | | 0.67 | *** |
| | Arrived from outside TDSB (ref. In TDSB in grade 8) | | | 0.88 | |
| School level | School challenged (ref. No) | | | 0.71 | |
| | Percentage of target group in the school 26-50% (ref. 0-25%) | | | 1.24 | |
| | Percentage of target group in the school 51-75% (ref. 0-25%) | | | 1.21 | |
| | Percentage of target group in the school 76-100% (ref. 0-25%) | | | 1.95 | * |
| **Variance of random intercept s2u** | | **0.41** | ******* | **0.16** | ******* |
| **Intra-class correlation (% of total variance at school level)** | | **11%** | *** | **5%** | |
| **Percentage of school level variance explained by model** | | | | **54.5%** | |

*** Significant at < 0.001 ** Significant at < 0.05 * Significant at < 0.10

The variable representing school challenge is statistically significant. The estimate for this variable revealed that students of schools classified as challenged were less likely to graduate than their counterparts in less challenged schools ($p<.05$). Finally, the intra-class correlation was reduced to 0.05 when the control variables were added to the model, but remained statistically significant ($p<.001$).

Table 16 indicates the impact of the independent variables on graduation separately for each group of non-English-speaking students.[7] Since the analysis included a considerable number of estimates, only the most noteworthy findings are shown.

The only variable that is consistently statistically significant across the models is the variable capturing school change. The estimate is in the predicted direction for each group, indicating that students who change schools at least once are considerably less likely to graduate than are their counterparts who do not change schools.

Perhaps the most notable estimate in the table is for the sex variable in the model for Tamil-speaking students. It reveals that the odds of graduating are more than three and a half times higher for females than for males ($p<.001$). While females are more likely to graduate than males for students of the other groups, the magnitude of the difference is not nearly as large as it is for students who speak Tamil.

Finally, none of the school-level variables are statistically significant for any of the models. However, in both the Tamil and Russian models the estimates for the 'percentage of the target group in the same school' variable are quite large. Their non-significance in these two models is likely attributable to the small Tamil and Russian sample sizes (and correspondingly large error variances).

[7] While the random component is not statistically significant for all language groups, a multilevel model is employed for each group for consistency, so that direct comparisons can be made across groups.

**Table 16**
**Graduation: Impact of socio-demographic, schooling process, and school level variables by language subgroups, Toronto**

| Variables | Chinese N = 1,336 | | Tamil N = 557 | | Urdu N = 327 | | Russian N = 342 | | Persian N = 264 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig |
| **Socio-demographic variables** | | | | | | | | | | |
| ▪ Female (ref. Male) | 1.22 | | 3.59 | *** | 1.99 | * | 1.75 | | 1.62 | . |
| ▪ Median family income | 1.01 | * | 1.00 | | 1.02 | | 1.00 | | 1.43 | ** |
| ▪ Immigrant (ref. Born Canada) | 1.07 | | 1.02 | | 1.14 | | 1.70 | | 1.34 | |
| **Schooling process variables** | | | | | | | | | | |
| ▪ One year late (ref. On time) | 0.31 | *** | 0.38 | * | 0.07 | *** | 0.69 | | 0.86 | |
| ▪ Changed school (ref. No) | 0.20 | *** | 0.31 | *** | 0.40 | ** | 0.49 | * | 0.34 | *** |
| ▪ ESL courses in high school (ref. No) | 0.61 | * | 0.63 | | 0.42 | * | 0.83 | | 1.23 | |
| ▪ Arrived from outside TDSB (ref. In TDSB in grade 8) | 1.18 | | 0.69 | | 1.02 | | 1.00 | | 1.01 | |
| **School level variables** | | | | | | | | | | |
| ▪ School challenged (ref. No) | 0.60 | | 0.91 | | 0.59 | | 0.55 | | 0.61 | |
| ▪ Percentage of target group in the school 26-50% (ref. 0-25%) | 1.22 | | 2.46 | | 0.36 | | 0.16 | | 0.91 | |
| ▪ Percentage of target group in the school 51-75% (ref. 0-25%) | 0.77 | | 2.78 | | 0.54 | | 0.25 | | 1.03 | |
| ▪ Percentage of target group in the school 76-100% (ref. 0-25%) | 0.95 | | 3.26 | | 1.23 | | 0.33 | | 1.68 | |
| **Variance of random intercept s2u** | 0.55 | ** | 0.46 | | 0.00 | | 0.74 | * | 0.00 | |
| **Intra-class correlation (% of total variance at school level)** | 8% | | 6% | | 0% | | 14% | | 0% | |

## Differences with the comparison group participation in schooling process

In this section, we assess whether the same factors have the same impact on the probability of graduating among the non-target group. Thus, the results in Table 17 are for English-speaking students only.

The first model (the null model) revealed that the school-level variance was statistically significant ($p<.001$); thus a multilevel model was used for the analysis. In Model 2, the estimates for English-speaking students revealed that immigrants were less likely to graduate than were native-born respondents. This finding is interesting, as it is opposite to the results identified in Table 15 for the non-English groups.

The region-of-origin section of the report examines the performance of English-speaking immigrants – principally from the Caribbean – that might contribute to this difference. The estimate for the sex variable revealed that females were more likely to graduate than males ($p<.001$).

Largely consistent with the results for the other language groups, English-speaking students who entered high school late were less likely to graduate than those who entered on time (p<.001). Interestingly, English-speaking students who tried to improve their proficiency in English by taking ESL classes were more likely to graduate than those who did not take such classes (p<.05). This is not unexpected, if such students are immigrants and determined to succeed in school.

**Table 17**
**Graduation: Impact of language group, socio-demographic, schooling process and school level variables (comparison group), Toronto**

N = All non target: 8,927

| Variables | Empty model | | Full model | |
|---|---|---|---|---|
| | Odds ratio | Sig | Odds ratio | Sig |
| **Socio-demographic variables** | | | | |
| ▪ Female (ref. Male) | | | 1.41 | *** |
| ▪ Median family income | | | 1.01 | *** |
| ▪ Immigrant (ref. Born in Canada) | | | 0.84 | ** |
| **Schooling process variables** | | | | |
| ▪ One year late (ref. On time) | | | 0.30 | *** |
| ▪ Changed school (ref. No) | | | 0.34 | *** |
| ▪ ESL in high school (ref. No) | | | 1.24 | * |
| ▪ Arrived from outside TDSB (ref. In TDSB in grade 8) | | | 0.73 | *** |
| **School level variables** | | | | |
| ▪ School challenged (ref. No) | | | 0.51 | *** |
| ▪ Percentage of target group in the school 26-50% (ref. 0-25%) | | | 1.20 | |
| ▪ Percentage of target group in the school 51-75% (ref. 0-25%) | | | 1.24 | |
| ▪ Percentage of target group in the school 76-100% (ref. 0-25%) | | | 2.21 | *** |
| **Variance of random intercept s2u** | 0.83 | *** | 0.59 | *** |
| **Intra-class correlation (% of total variance at school level)** | 17% | | 19% | |
| **% of school level variance explained by model** | | | 41.12 | |

*** Significant at < 0.001 ** Significant at < 0.05 * Significant at < 0.10

Students who changed schools one or more times were considerably less likely to graduate than those who remained in the same school (p<.001), and those who came to their high school from outside the TDSB were less likely to graduate than their counterparts who entered high school from the TDSB (p<.001). With respect to our indicator of socio-economic status, the findings revealed that students living in neighbourhoods with higher family incomes were more likely to graduate than students in neighbourhoods with lower family incomes (p<.001).

Both school-level variables were statistically significant in Model 4. The estimate for the "percent of target group" in the school variable revealed that the odds of graduating were more than twice as high for English-speaking students if they were in schools that consisted mostly of non-English-speaking students (>75% non-English-speaking) than if they were in schools that consisted mainly of English-speaking students (<25% non-English-speaking). This apparent anomaly may be explained by the relative advantage of such students in schools where the language of instruction is English. However, the literature suggests that learning and teaching in these schools is more difficult. It is also possible the finding is a statistical artefact. Those assessed represent a relatively small number (8%) of the English-speaking respondents in the cohort. In any event, most English-speaking students attended schools in which non-English speakers represented 26-75% of the student body and where differences in the likelihood of graduation did not differ from that found in schools with lower non-English-speaking enrolments (<25%).

English-speaking students from schools classified as challenged were less likely to graduate than their counterparts in schools not classified as challenged ($p<.001$). Finally, when all of the variables were included in the model, the proportion of variance at level two remained statistically significant ($p<.001$). Thus, a considerable amount of variance at the school level needs to be explained by characteristics that were not included in the model.

**Access to university-bound or selective courses**

The models estimated in Tables 17 through 20 are replicated in Tables 21 through 25, respectively, but the response variable distinguishes between those who were and those who were not enrolled in a university stream in the TDSB in grade 11. Thus, the sample for the second set of analyses includes only those students who successfully made it to grade 11.

**Comparative performance of non-English speakers and various subgroups**

Table 18 includes all English and non-English-speaking respondents (n=11,609). The level two variance is statistically significant ($p<.001$) in all models justifying the use of a mixed generalized linear model.

The estimate in Model 2 reveals that non-English-speaking students are more likely than their English-speaking counterparts to be enrolled in a University stream ($p<.001$). The magnitude of the estimate is approximately the same in Model 3 and the level of statistical significance is unchanged once the control variables are added to the model. Thus, the difference between English- and non-English-speaking students in terms of their odds of being in a university stream is not attributable to independent variables in the model.

**Table 18**
**Participation in university-bound courses: Differences between target group (non-English speakers) and subgroups and comparison group (English speakers) with or without control variables, Toronto**

N = All target and non target still in the system in grade 11: 11,609

| Variables | Model 1 empty model | | Model 2 only target group | | Model 3 with control variables | | Model 4 only target subgroups | | Model 5 with control variables | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Odds ratio** | **Sig** | **Odds ratio** | **Sig** | **Odds ratio** | **Sig** | **Odds ratio** | **Sig** | **Odds ratio** | **Sig** |
| **Language group variable** (ref. English) | | | | | | | | | | |
| ▪ All non-English | | | 1.73 | *** | 1.82 | *** | | | | |
| **Language subgroup variables** (ref. English) | | | | | | | | *** | | *** |
| ▪ Chinese | | | | | | | 2.56 | *** | 2.86 | *** |
| ▪ Tamil | | | | | | | 2.17 | *** | 2.32 | *** |
| ▪ Urdu | | | | | | | 1.77 | *** | 1.83 | *** |
| ▪ Russian | | | | | | | 1.37 | *** | 1.62 | *** |
| ▪ Persian | | | | | | | 0.90 | | 1.10 | *** |
| ▪ Other non-English speakers | | | | | | | 0.99 | | 0.97 | |
| **Variance of random intercept s2u** | 0.85 | *** | 0.76 | *** | 0.83 | *** | 0.74 | *** | 0.85 | *** |
| **Intra-class correlation (% of total variance at school level)** | 21% | | 19% | | 20% | | 18% | | 20% | |
| **% of school level variance explained by model** | | | 50% | | 4.76% | | 14.29% | | 4.76% | |

*** Significant at < 0.001 ** Significant at < 0.01 * Significant at < 0.05

In Model 4 (excluding controls) and Model 5 (including controls), the non-English-speaking students are further subdivided into the six-non-English subgroups: Chinese, Tamil, Urdu, Russian, Persian, and other non-English-speaking students. The estimates from these models mirror the results from Table 19; that is, students who speak Chinese are most likely to be in a university stream, followed by students who speak Tamil, and then by students who speak Urdu. All three groups were more likely to be enrolled in a university stream than members of the reference category, English-speaking students ($p<.001$).

When control variables were added in Model 5, Persian-speaking students also became significantly more likely to be in a university stream than English-speaking students ($p<.001$). This finding indicates that the socio-demographic and school related disadvantages faced by Persian-speaking students reduce their likelihood of entering a university stream.

Impact of socio-demographic, schooling process and school characteristics variables

The models estimated in Table 19 are for non-English-speaking students only (n=3,333). In both models, the intercept-only model and the full model, the amount of variability at level 2 is statistically significant ($p<.001$), indicating that the chance of a non-English-speaking student being enrolled in a university stream varied randomly across schools. However, in comparing the random components across models, it appears that the independent variables accounted for more than one-third of the school-level variability.

The impact of language group is statistically significant ($p<.001$), and the pattern of the parameter estimates is similar to the pattern identified in Model 5. Chinese-speaking students were most likely to be enrolled in a university stream, followed by students who spoke Tamil, and then by Urdu-speaking students. The difference between Chinese- and Tamil-speaking students and the reference category (other non-English-speaking students) was statistically significant ($p<.001$), and the difference between Urdu-speaking students and the reference category was statistically significant at $p<.05$. There was no difference among students who spoke Russian, Persian, and other non-English languages in terms of the odds of being in a university-bound stream (p=ns).

Among the control variables, non-English-speaking students were more likely to be enrolled in a university stream if they were female ($p<.001$), did not require additional training in English ($p<.001$), and had not changed schools ($p<.001$). Non-English-speaking students were also more likely to be in university streams if they were in families with higher family incomes ($p<.01$). In contrast, the effects of immigrant status, age of entry, and the variable that identifies whether the student was already in the TDSB in grade 8 were not statistically significant among non-English-speaking students.

**Table 19**
**Participation in university-bound courses: Impact of language group, socio-demographic, schooling process and school level variables (target group), Toronto**

N = All target still in the system in grade 11: 3,333

| Variables | | Empty model | | Full model | |
|---|---|---|---|---|---|
| | | | | Odds ratio | Sig |
| Language subgroups (ref. Other non-English speakers) | Chinese | | | 2.75 | *** |
| | Tamil | | | 2.08 | *** |
| | Urdu | | | 1.79 | |
| | Russian | | | 1,59 | *** |
| | Persian | | | 0.82 | |
| Socio-demographic | Female (ref. Male) | | | 1.47 | *** |
| | Median family income | | | 1.01 | ** |
| | Immigrant (ref. Born in Canada) | | | 0.81 | |
| Schooling process | Late upon entry (ref. Early or on time) | | | 0.65 | |
| | Changed school (ref. No) | | | 0.44 | *** |
| | Still needed ESL in high school (ref. No) | | | 0.45 | *** |
| | Arrived from outside TDSB (ref. in TDSB in grade 8) | | | 1.20 | |
| School level | School challenged (ref. No) | | | 0.76 | |
| | Percentage of target group in the school 26-50% (ref. 0-25%) | | | 2.01 | |
| | Percentage of target group in the school 51-75% (ref. 0-25%) | | | 1.87 | |
| | Percentage of target group in the school 76-100% (ref. 0-25%) | | | 3.07 | * |
| **Variance of random intercept s2u** | | **1.03** | ******* | **0.57** | ******* |
| **Intra-class correlation (% of total variance at school level)** | | **24%** | | **15%** | |
| **Percentage of school level variance explained by model** | | | | **37.5%** | |

*** Significant at < 0.001 ** Significant at < 0.05 * Significant at < 0.10

Among the whole group of non-English-speaking students, both school-level variables were not statistically significantly related to whether or not a student was enrolled in a university stream. Interestingly, however, the estimated odds ratios for the variable that identified the percentage of target group in the respondent's school were large, and indicate that non-English-speaking students were more likely to be in a university stream if they were in schools with a higher proportion of students who spoke the same language. Thus, the significance tests for the estimates were likely strongly influenced by the sample sizes corresponding with the parameter estimates.[8]

[8] For example, while the odds ratio for the parameter indicating that more than 75% of students speak the same language as the respondent is greater than three, the proportion of respondents in this category is very small.

**Table 20**
**Participation in university-bound courses: Impact of socio-demographic, schooling process and school level variables by language subgroups, Toronto**

| Variables | Chinese N = 1,168 | | Tamil N = 450 | | Urdu N = 258 | | Russian N = 274 | | Persian N = 180 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig | Odds ratio | Sig |
| **Socio-demographic variables** | | | | | | | | | | |
| ▪ Female (ref. Male) | 1.23 | | 1.82 | * | 1.17 | | 0.80 | | 1.65 | . |
| ▪ Median family income | 1.02 | ** | 1.00 | | 1.00 | | 1.01 | | 1.03 | * |
| ▪ Immigrant (ref. Born in Canada) | 0.52 | ** | 1.00 | | 2.83 | * | 0.66 | | 4.72 | |
| **Schooling process variables** | | | | | | | | | | |
| ▪ One year late (ref. Early or on time) | 0.52 | | 0.54 | | 0.16 | | 1.28 | | 0.33 | |
| ▪ Changed school (ref. No) | 0.39 | *** | 0.50 | * | 0.29 | ** | 0.43 | | 0.94 | |
| ▪ ESL courses in high school (ref. No) | 0.36 | *** | 0.22 | *** | 0.74 | | 0.72 | | 0.43 | |
| ▪ Arrived from outside TDSB (ref. In TDSB in grade 8) | 2.72 | ** | 0.53 | | 0.63 | | 1.77 | | 2.14 | |
| **School level variables** | | | | | | | | | | |
| ▪ School challenged (ref. No) | 0.60 | | 1.31 | | 1.44 | | 0.80 | | 0.73 | |
| ▪ Percentage of target group in the school 26-50% (ref. 0-25%) | 1.40 | | 1.53 | | 1.09 | | 2.72 | | 4.71 | |
| ▪ Percentage of target group in the school 51-75% (ref. 0-25%) | 1.38 | | 1.98 | | 1.45 | | 0.92 | | 9.69 | * |
| ▪ Percentage of target group in the school 76-100% (ref. 0-25%) | 1.27 | | 169 | | 1.53 | | 1.21 | | 20.30 | * |
| **Variance of random intercept s2u** | 0.67 | *** | 0.00 | | 0.17 | | 0.00 | | 0.18 | . |
| **Intra-class correlation (% of total variance at school level)** | 17% | | 0% | | 5% | | 0% | | 5% | |

*** Significant at < 0.001 ** Significant at < 0.05 * Significant at < 0.10

Table 20 presents the regression results separately for each of the non-English-speaking groups. As with Table 16, the small sample size for many of the language group models made it difficult to detect statistically significant findings for some of language groups (e.g., Persian, Urdu, Russian, and Tamil). In most instances, the parameter estimates were in the expected direction, consistent with the results in Table 20. Estimates that were not in the expected direction were generally not very far off.

The most noteworthy discrepancy involved the school-level variable that identifies the percentage of target group in the respondent's school for students who spoke Persian. The odds ratios for this variable revealed that these students benefited most dramatically from being in schools where there was a high proportion of other students who did not speak English. However, these estimates are suspect, because the sample size for this model was small (n=180).

**Differences with the comparison group participation in university-bound courses**

The model for each of the non-English-speaking language groups is reproduced in Table 21 for English-speaking students. The empty model in Table 21 indicates a significant amount of variability in the response variable across schools ($p<.001$). However, unlike the case for non-English-speaking students, the second model reveals none of the school-level variability attributable to the independent variables in the model. The random component remains statistically significant ($p<.001$). Likewise, all of the regression estimates are also statistically significant ($p<.001$).

With the exception of the variable that distinguishes between students who had taken ESL classes, the direction of the regression estimates is identical to the estimates shown in Table 17, in which graduation was the response variable. Thus, English-speaking students in the TDSB were more likely to be enrolled in a university stream if they were Canadian-born, female, entered the system on time, did not change schools, and entered high school from within the TDSB. Students enrolled in the university stream were also more likely to have higher family incomes.

Finally, whereas English-speaking students were more likely to graduate if they had taken ESL courses, such students were less likely to be in a university stream ($p<.001$). The latter finding is not unexpected, as it would be unlikely that English-speaking students in a university stream would be successful if they required additional training in English.

As with graduation, English-speaking students were more successful when they attended a school in which the majority of students were non-English speakers ($p<.001$). For example, the odds of being enrolled in a university-bound stream were more than twice as high for students in highly concentrated non-English-speaking schools (e.g., if they were in schools in which more than 75% of the students did not speak English as opposed to less than 25%). The difficulties in interpreting this finding have been discussed with respect to the link between language concentration in schools and graduation rates. Similarly, English-speaking students were more likely to be enrolled in a university stream if they attended schools that were not classified as challenged ($p<.001$).

**Table 21**
**Participation: Impact of language group, socio-demographic, schooling process and school level variables (comparison group), Toronto**

N = All non target still in the system in grade 11: 8,276

| Variables | Empty model | | Full model | |
|---|---|---|---|---|
| | Odds ratio | Sig | Odds ratio | Sig |
| **Socio-demographic variables** | | | | |
| ▪ Female (ref. Male) | | | 1,29 | *** |
| ▪ Median family income | | | 1.01 | *** |
| ▪ Immigrant (ref. Born in Canada) | | | 0.72 | *** |
| **Schooling process variables** | | | | |
| ▪ One year late (ref. On time) | | | 0.38 | *** |
| ▪ Changed school (ref. No) | | | 0.43 | *** |
| ▪ ESL courses in high school (ref. No) | | | 0.52 | *** |
| ▪ Arrived from outside TDSB (ref. In TDSB in grade 8) | | | 1.26 | *** |
| **Schooling level variables** | | | | |
| ▪ School challenged (ref. No) | | | 0.49 | *** |
| ▪ Percentage of target group in the school 26-50% (ref. 0-25%) | | | 1.40 | ** |
| ▪ Percentage of target group in the school 51-75% (ref. 0-25%) | | | 1.37 | ** |
| ▪ Percentage of target group in the school 76-100% (ref. 0-25%) | | | 2.29 | *** |
| **Variance of random intercept s2u** | 0.82 | *** | 0.86 | *** |
| **Intra-class correlation (% of total variance at school level)** | 20% | | 21% | |
| **% of school level variance explained by model** | | | 0 | |

*** Significant at < 0.001 ** Significant at < 0.05 * Significant at < 0.10

## EDUCATIONAL PATHWAYS AND ACADEMIC PERFORMANCE OF FOREIGN-BORN STUDENTS: DESCRIPTIVE DATA

In this section we profile each cohort by country of origin, detailing selected social structures, personal characteristics, risk factors, and school context factors. We distinguish between foreign-born and native-born students. The second section includes a discussion of each group's participation and achievement in Mathematics, English, and Science.

### Characteristics of the target and comparison groups and of subgroups

The Toronto cohort numbered 15,628 students who, in 2000, entered grade 9 in the TDSB. Of these, 5,934 (38%) indicated they were born outside Canada. This is our target group and was divided through the process described in section 1.3.2, into six subgroups. The remaining 9,694 students – those born in Canada – is the comparison group.

Among the target group, those born in Eastern Asia (21%) and Southern Asia (23%) were most numerous. They were followed by the students from the Caribbean and Bermuda (11%), Eastern Europe (10%), West Central Asia and the Middle East (9%), and Eastern Africa (5%).

## Social structures and personal characteristics

### *Gender*

As Table 22 shows, 48% of the students born in Canada were female. This gender distribution holds for students born outside Canada, except in the case of Eastern Africa, where there was a majority of female students.

**Table 22**
**Region of birth: Gender, Toronto**

| Region of birth | Male | | Female | |
|---|---|---|---|---|
| | N | % | N | % |
| **Outside Canada** | | | | |
| All | 3,073 | 51.8 | 2,861 | 48.2 |
| Subgroups | | | | |
| Caribbean and Bermuda | 324 | 51.0 | 311 | 49.0 |
| Eastern Europe | 287 | 50.8 | 278 | 49.2 |
| Eastern Africa | 153 | 48.0 | 166 | 52.0 |
| West Central Asia and Middle East | 280 | 52.1 | 257 | 47.9 |
| Eastern Asia | 651 | 53.2 | 573 | 46.8 |
| Southern Asia | 712 | 52.2 | 653 | 47.8 |
| **Canada** | 5,040 | 52.0 | 4,654 | 48.0 |

### *Socio-economic status*

Postal codes for students were matched with DA-level information in the 2001 Census for the median family income of families. Median family income was then broken down into quintiles for each of the six regional groups. In examining the lowest quintile or median income category, we see in Table 23 that almost 29% of all regional sub-groups born outside Canada fell within this lowest income group; this percentage contrasts with 13.4% for students born in Canada. Students from Southern Asia, Eastern Africa, and the Caribbean/Bermuda were found to be disproportionately represented in the lowest median income group. Students from Eastern Asia were similar to students born in Canada.

**Table 23**
**Region of birth: Median family income in EA of residence, Toronto**

| Region of birth | Lowest | | Low | | Medium | | High | | Highest | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Outside Canada** | | | | | | | | | | |
| All | 1,634 | 28.6 | 1,480 | 25.9 | 1,291 | 22.6 | 795 | 13.9 | 517 | 9.0 |
| Subgroups | | | | | | | | | | |
| Caribbean and Bermuda | 199 | 32.8 | 173 | 28.5 | 154 | 25.4 | 61 | 10.1 | 19 | 3.1 |
| Eastern Europe | 112 | 20.2 | 170 | 30.6 | 109 | 19.6 | 92 | 16.6 | 72 | 13.0 |
| Eastern Africa | 117 | 39.5 | 93 | 31.4 | 49 | 16.6 | 20 | 6.8 | 17 | 5.7 |
| West Central Asia and Middle East | 133 | 25.8 | 168 | 32.6 | 106 | 20.6 | 60 | 11.7 | 48 | 9.3 |
| Eastern Asia | 164 | 13.8 | 246 | 20.7 | 321 | 27.0 | 266 | 22.4 | 190 | 16.0 |
| Southern Asia | 527 | 40.1 | 330 | 25.1 | 281 | 21.4 | 137 | 10.4 | 39 | 3.0 |
| **Canada** | 1,268 | 13.4 | 1414 | 15.0 | 1,918 | 20.3 | 2,205 | 23.4 | 2,632 | 27.9 |

### *Language spoken at home*

Table 24 indicates that among students born in Canada, English was the predominant language spoken at home (83.7%). Among students born outside Canada, 25.3% spoke English at home. However, this proportion was inflated by the fact that most students from the Caribbean and Bermuda (97.6%) spoke English at home. When the languages spoken by students were examined by region of birth, most students spoke a language other than English at home, except for students from the Caribbean and Bermuda.

**Table 24**
**Region of birth: Language spoken at home, Toronto**

| Region of birth | English | | Non-English | |
|---|---|---|---|---|
| | N | % | N | % |
| **Outside Canada** | | | | |
| All | 1,489 | 25.3 | 4,405 | 74.7 |
| Subgroups | | | | |
| Caribbean and Bermuda | 614 | 97.6 | 15 | 2.4 |
| Eastern Europe | 19 | 3.4 | 545 | 96.6 |
| Eastern Africa | 40 | 12.7 | 276 | 87.3 |
| West Central Asia and Middle East | 66 | 12.3 | 469 | 87.7 |
| Eastern Asia | 130 | 10.7 | 1,088 | 89.3 |
| Southern Asia | 176 | 13.0 | 1,181 | 87.0 |
| **Canada** | 8,016 | 83.7 | 1,565 | 16.3 |

## Risk factors

### *Age when entering high school*

The age at which students entered secondary schools in the TDSB was not necessarily a function of late arrival from source countries for newcomer youth. Rather, it may reflect cumulative disadvantages in the transition pathways of students who move from the elementary level to the secondary level. Therefore, being one year late in entering secondary school is seen as at risk factor.

Table 25 shows that only 4.9% of students born in Canada started their secondary studies at the age of 15 or older, while 9.2% of students born outside Canada began their secondary studies at this age. An inspection of the age at entry for different regional groups revealed that students from the Caribbean and Bermuda were most likely to enter secondary school at the age of 15 or older, and students from Eastern Africa were also likely to enter late. Among students born outside Canada, those from West Central Asia and the Middle East were least likely to enter late.

**Table 25**
**Region of birth: Age when entering high school, Toronto**

| Region of birth | Early | | On time | | One year late | |
|---|---|---|---|---|---|---|
| | N | % | N | N | N | % |
| **Outside Canada** | | | | | | |
| All | 92 | 1.6 | 5,299 | 89.3 | 543 | 9.2 |
| Subgroups | | | | | | |
| Caribbean and Bermuda | ** | ** | 533 | 83.9 | 93 | 14.6 |
| Eastern Europe | ** | ** | 514 | 91.0 | 47 | 8.3 |
| Eastern Africa | ** | ** | 276 | 86.5 | 36 | 11.3 |
| West Central Asia and Middle East | 14 | 2.6 | 488 | 90.9 | 35 | 6.5 |
| Eastern Asia | 13 | 1.1 | 1,100 | 89.9 | 111 | 9.1 |
| Southern Asia | 31 | 2.3 | 1,231 | 90.2 | 103 | 7.5 |
| **Canada** | 81 | 0.8 | 9,142 | 94.3 | 471 | 4.9 |

** Fewer than 10 students.

### *Level of entry into the school system*

While 80% of students entered the TDSB from elementary schools within the TDSB, about 20% entered either from another Canadian jurisdiction or as immigrants. Of those born in Canada, 18.1% were newcomers from another Canadian school board. Of those born outside Canada, 9.8% were newcomers from within Canada and 11.4% were newcomers from outside Canada. With respect to the region of birth of newcomers from outside Canada, we observed a range, from 17.2% for students born in Eastern Europe to 9.0% for those born in the Caribbean and Bermuda.

**Table 26**
**Region of birth: Level of entry into the school system, Toronto**

| Region of birth | In TDSB elementary | | Newcomers from inside Canada | | Newcomers from outside Canada | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Outside Canada** | | | | | | |
| All | 4,677 | 78.8 | 582 | 9.8 | 675 | 11.4 |
| Subgroups | | | | | | |
| Caribbean/Bermuda | 498 | 78.4 | 80 | 12.6 | 57 | 9.0 |
| Eastern Europe | 395 | 69.9 | 72 | 12.7 | 98 | 17.3 |
| Eastern Africa | 248 | 77.7 | 45 | 14.1 | 26 | 8.2 |
| West Central Asia and Middle East | 426 | 79.3 | 43 | 8.0 | 68 | 12.7 |
| Eastern Asia | 1,003 | 81.9 | 68 | 5.6 | 153 | 12.5 |
| Southern Asia | 1,089 | 79.8 | 107 | 7.8 | 169 | 12.4 |
| **Canada** | 7,938 | 81.9 | 1,756 | 18.1 | ** | ** |

** Fewer than 10 students.

### *Frequency of school changes (within four years of entering grade 8)*

Table 27 shows that the proportion of students born either in or outside Canada who changed schools once or more during their secondary education was approximately the same, at about 20%. However, if we disaggregate those born outside Canada by region of birth, we can identify significant variations in the frequency of school moves. One out of four students from Eastern Africa, West Central Asia and the Middle East, and the Caribbean and Bermuda changed schools once or more during their secondary school careers. In contrast, only 14% of students from Eastern Asia experienced comparable school changes.

**Table 27**
**Region of birth: Frequency of school changes (within 4 years of entering grade 8), Toronto**

| Region of birth | No school change | | One or more school changes | |
|---|---|---|---|---|
| | N | % | N | % |
| **Outside Canada** | | | | |
| All | 4,743 | 80.3 | 1,166 | 19.7 |
| Subgroups | | | | |
| Caribbean/Bermuda | 483 | 76.2 | 151 | 23.8 |
| Eastern Europe | 463 | 82.4 | 99 | 17.6 |
| Eastern Africa | 228 | 72.2 | 88 | 27.8 |
| West Central Asia and Middle East | 397 | 74.1 | 139 | 25.9 |
| Eastern Asia | 1,051 | 86.0 | 171 | 14.0 |
| Southern Asia | 1,049 | 80.6 | 263 | 19.4 |
| **Canada** | 7,822 | 81.0 | 1,832 | 19.0 |

### *ESL/ELD courses in high school*

Virtually no Canadian-born students took ESL/ELD courses at the secondary level, while 20.8% of students born outside Canada enrolled in such courses. As Table 28 shows, students born in Eastern Asia and West Central Asia and the Middle East were the most likely to take ESL/ELD courses in high school, while students from the Caribbean/Bermuda and Eastern Africa were least likely to enrol (English is spoken in most parts of the Caribbean and Bermuda).

**Table 28**
**Region of birth: ESL/ELD courses in high school, Toronto**

| Region of birth | Yes | | No | |
|---|---|---|---|---|
| | N | % | N | % |
| **Outside Canada** | | | | |
| All | 1,236 | 20.8 | 4,698 | 79.2 |
| Subgroups | | | | |
| Caribbean/Bermuda | 62 | 9.8 | 573 | 90.2 |
| Eastern Europe | 124 | 21.9 | 441 | 78.1 |
| Eastern Africa | 40 | 12.5 | 279 | 87.5 |
| West Central Asia and Middle East | 149 | 27.7 | 388 | 72.3 |
| Eastern Asia | 374 | 30.6 | 850 | 69.4 |
| Southern Asia | 316 | 23.2 | 1,049 | 76.8 |
| **Canada** | 90 | 0.9 | 9,604 | 99.1 |

## School characteristics

### *Concentration of non-English speakers*

A school context variable was created, consisting of variations in the concentration of non-English speakers, ranging from schools with 0-25% non-English speakers to schools with 76-100% non-English speakers. As Table 29 shows, 70% of students born outside Canada attended schools in which more than 50% of students spoke a language other than English. In contrast, only 46% of students born in Canada attended schools with equivalent concentrations of non-English speakers.

Each of our six region-of-birth subgroups was analysed in terms of their attendance at schools with varying concentrations of non-English speakers to identify any regional variations. We found that students from Eastern Asia, Southern Asia, and West Central Asia and the Middle East attended schools with the highest concentrations of non-English-speaking students. Students from the Caribbean and Bermuda and Eastern Europe attended less concentrated schools with respect to non-English speakers.

**Table 29**
**Region of birth: Concentration of non-English speakers in school attended, Toronto**

| Region of birth | 0 - <25% | | 26 - <50% | | 51 - <75% | | 76 - 100% | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| **Outside Canada** | | | | | | | | |
| All | 328 | 5.7 | 1,385 | 23.9 | 3,069 | 52.9 | 1,017 | 17.5 |
| Subgroups | | | | | | | | |
| Caribbean/Bermuda | 76 | 12.2 | 206 | 33.0 | 315 | 50.5 | 27 | 4.3 |
| Eastern Europe | 35 | 6.4 | 169 | 31.0 | 273 | 43.5 | 104 | 19.1 |
| Eastern Africa | 23 | 7.3 | 67 | 21.3 | 193 | 61.5 | 31 | 9.9 |
| West Central Asia and Middle East | 18 | 3.4 | 118 | 22.4 | 266 | 50.6 | 124 | 23.6 |
| Eastern Asia | 29 | 2.4 | 198 | 16.3 | 596 | 49.0 | 393 | 32.3 |
| Southern Asia | 43 | 3.2 | 255 | 19.2 | 790 | 59.6 | 237 | 17.9 |
| **Canada** | 1,634 | 17.1 | 3,446 | 36.1 | 3,709 | 38.9 | 757 | 7.9 |

### *External challenge of the school*

As shown in Table 30, 10.7% of students born in Canada and 23.3% of students born outside Canada were enrolled in schools with high levels of external challenge. There was also considerable variation among students born outside Canada with respect to enrolment in such schools. For example, 39.3% of students from Eastern Africa carried out their studies in these schools, compared to only 9.7% of students from Eastern Asia.

**Table 30**
**Region of birth: External challenge of school attended, Toronto**

| Region of birth | Lowest | | Low | | Medium | | High | | Highest | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| **Outside Canada** | | | | | | | | | | |
| All | 842 | 14.5 | 1,266 | 21.8 | 1,361 | 23.5 | 981 | 16.9 | 1,349 | 23.3 |
| Subgroups | | | | | | | | | | |
| Caribbean/Bermuda | 23 | 3.7 | 102 | 16.3 | 163 | 26.1 | 171 | 27.4 | 165 | 26.4 |
| Eastern Europe | 169 | 31.0 | 86 | 15.8 | 138 | 25.3 | 30 | 5.5 | 122 | 22.4 |
| Eastern Africa | 13 | 4.1 | 32 | 10.2 | 71 | 22.6 | 75 | 23.9 | 123 | 39.2 |
| West Central Asia and Middle East | 78 | 14.8 | 75 | 14.3 | 135 | 25.7 | 96 | 18.3 | 142 | 27.0 |
| Eastern Asia | 305 | 25.1 | 467 | 38.4 | 227 | 18.7 | 99 | 8.1 | 118 | 9.7 |
| Southern Asia | 53 | 4.0 | 316 | 23.8 | 370 | 27.9 | 271 | 20.5 | 315 | 23.8 |
| **Canada** | 2,938 | 30.8 | 1,927 | 20.2 | 2,302 | 24.1 | 1,361 | 14.3 | 1,018 | 10.7 |

## Comparative Educational Pathways and Academic Performance

### *Graduation and drop-out rates*

Table 31 shows, first, that completion trends from year 4 to year 6 were generally similar, although foreign-born students' cumulative completion rate was somewhat lower. Some 61.4% of foreign-born students graduated after 6 years, while 65.5% of Canadian-born had graduated by that time. When adjusted to account for those who remained in the TDSB system or who had transferred to another educational jurisdiction, the dropout rates were basically the same between groups (23%).

There exists considerable variability within the foreign-born group. Year 4 completion is markedly higher for students from Eastern Asia compared with those from the Caribbean or Eastern Africa and the Middle East. However, 10% to 15% of students from these regions had graduated by the second year. Dropout rates for Eastern Africa and the Caribbean were higher than the average for foreign-born groups. Dropout figures for those from the Middle East were close to the average, but this figure was adjusted for the large number of students (22%) who transferred out of the TDSB.

**Table 31**
**Region of birth: Graduation rates and educational pathways, Toronto**

| Region of birth | Graduated within TDSB | | | | | | Cumul-ative | Still in TDSB | Transferred to another educational jurisdiction | | Drop-out | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | On time | | 1 year after expected | | 2 years after expected | | | | | | | |
| | N | % | N | % | N | % | % | N | N | % | N | % |
| **Outside Canada** | | | | | | | | | | | | |
| All | 3,280 | 47.1 | 843 | 12.1 | 152 | 2.2 | 61.4 | 101 | 1,024 | 14.7 | 1,558 | 22.4 |
| Subgroups | | | | | | | | | | | | |
| Caribbean/Bermuda | 185 | 25.0 | 113 | 15.2 | 22 | 3.0 | 43.2 | 19 | 106 | 14.3 | 296 | 39.9 |
| Eastern Europe | 361 | 53.2 | 73 | 10.8 | 11 | 1.6 | 65.6 | ** | 114 | 16.8 | 113 | 16.6 |
| Eastern Africa | 140 | 39.3 | 51 | 14.3 | ** | ** | 56.1 | ** | 37 | 10.4 | 113 | 31.7 |
| West Central Asia and Middle East | 279 | 40.6 | 76 | 11.1 | 14 | 2.0 | 53.7 | 10 | 150 | 21.8 | 158 | 23.0 |
| Eastern Asia | 893 | 64.4 | 117 | 8.4 | 21 | 1.5 | 74.3 | 14 | 163 | 11.8 | 197 | 12.9 |
| Southern Asia | 797 | 49.8 | 215 | 13.4 | 35 | 2.2 | 65.4 | 21 | 235 | 14.7 | 297 | 18.6 |
| **Canada** | 5,301 | 49.6 | 1,390 | 13.0 | 315 | 2.9 | 65.5 | 258 | 998 | 9.3 | 2,430 | 22.7 |

** Fewer than 10 students.

### *Participation and performance in selected topics*

*English*

Table 32a shows no apparent differences in participation by native-born and foreign-born students. Within the foreign-born group, the regional group with the highest university enrolment was from Eastern Asia, while that with the lowest level of enrolment was from the Caribbean. Caribbean student enrolment in “other” English programs was much higher than the average for foreign-born students. The following groups have relatively high non-participation rates (the “not enrolled” category): Caribbean/Bermuda, Eastern Africa, and the Middle East.

Achievement information in Table 32b is available only for university and college programs of study due to the very small numbers enrolled in either mixed or workplace English programs. For the university and college programs, there were no differences in achievement between foreign-born and native-born groups. Achievement differences of approximately 13% between university and college programs were the same for both foreign-born and native-born. Within the foreign-born groups, university achievement differences were less marked than in Mathematics. However, the achievement of Caribbean/Bermuda students was well below the average for foreign-born students, as it was in the college program.

**Table 32a**
**Region of birth: Participation in grade 12 English courses, Toronto**

| Region of birth | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Outside Canada** | | | | | | |
| All | 3,768 | 63.5 | 1,220 | 20.6 | 946 | 15.9 |
| Subgroups | | | | | | |
| Caribbean/Bermuda | 180 | 28.3 | 249 | 46.3 | 161 | 25.4 |
| Eastern Europe | 423 | 74.9 | 65 | 11.5 | 77 | 13.6 |
| Eastern Africa | 177 | 55.5 | 76 | 23.8 | 66 | 20.7 |
| West Central Asia and Middle East | 314 | 58.5 | 117 | 21.8 | 106 | 19.7 |
| Eastern Asia | 1004 | 82.0 | 91 | 7.4 | 129 | 10.5 |
| Southern Asia | 947 | 69.4 | 234 | 17.1 | 184 | 13.5 |
| **Canada** | 6,355 | 65.6 | 1,965 | 20.3 | 13,74 | 14.2 |

**Table 32b**
**Region of birth: Performance in grade 12 English courses, Toronto**

| Region of birth | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Outside Canada** | | | | |
| All | 71.3 | ** | 58.0 | 55.2 |
| Subgroups | | | | |
| Caribbean/Bermuda | 63.7 | ** | 54.7 | 56.6 |
| Eastern Europe | 75.0 | ** | 62.9 | ** |
| Eastern Africa | 67.0 | ** | 58.4 | ** |
| West Central Asia and Middle East | 69.9 | ** | 62.5 | ** |
| Eastern Asia | 74.8 | ** | 58.3 | ** |
| Southern Asia | 70.2 | ** | 58.9 | 53.5 |
| **Canada** | 71.9 | ** | 58.0 | 55.5 |

*Mathematics*

Differences in Mathematics participation between native-born and foreign-born students vary by program (Table 33a). Of the foreign-born students, 52% were enrolled in the university program of study, while this figure was 42% for native-born students. Enrolment for the native-born in the other program category was 42%, while for the foreign-born it was 32%. Those not enrolled in any program were approximately 16% for both foreign and native-born groups.

Within the group of foreign-born students, there were large regional differences in university participation. Students from Eastern Asia enrolled in the university program in large numbers. Enrolments from Eastern Europe and Southern Asia were also above-average for the foreign-born group. Relatively few students from the Caribbean opted for the university path. In the "other" programs category, 60% of Caribbean-region students, 38% of students from the Middle East, and 40% of students from Eastern Africa were enrolled.

Table 33b shows minimal differences between foreign and native-born students in Mathematics achievement. There were marked differences across programs of study – achievement in the university program was 10% to 15% higher, irrespective of region of birth. Within the foreign-born group, achievement differences by program of study are evident. In the university program, Eastern Asian students had the highest marks, while those from the Caribbean or Bermuda were markedly lower.

In the mixed-program category, the average mark for students from Eastern Africa was 46%. However, their numbers are too few to make an adequate estimate of achievement. Among college students, those from the Caribbean/Bermuda and Eastern Africa were less than the foreign-born average. In the workplace category, marks attained by students from Caribbean/Bermuda and Eastern Africa also were comparatively low.

**Table 33a**
**Region of birth: Participation in grade 12 Mathematics courses, Toronto**

| Region of birth | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Outside Canada** | | | | | | |
| All | 3,063 | 51.6 | 1,882 | 31.7 | 989 | 16.7 |
| Subgroups | | | | | | |
| Caribbean and Bermuda | 80 | 12.6 | 379 | 59.7 | 176 | 27.7 |
| Eastern Europe | 337 | 59.6 | 151 | 26.7 | 77 | 13.6 |
| Eastern Africa | 117 | 36.7 | 128 | 40.1 | 74 | 23.2 |
| West Central Asia and Middle East | 221 | 41.2 | 206 | 38.4 | 110 | 20.5 |
| Eastern Asia | 972 | 79.4 | 141 | 11.5 | 111 | 9.1 |
| Southern Asia | 806 | 59.0 | 376 | 27.5 | 183 | 13.4 |
| **Canada** | 4,104 | 42.3 | 4,041 | 41.7 | 1,549 | 16.0 |

**Table 33b**
**Region of birth: Performance in grade 12 Mathematics courses, Toronto**

| Region of birth | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Outside Canada** | | | | |
| All | 67.4 | 50.0 | 54.5 | 56.9 |
| Subgroups | | | | |
| Caribbean/Bermuda | 58.1 | 49.0 | 48.9 | 52.3 |
| Eastern Europe | 70.6 | 54.2 | 59.5 | 66.2 |
| Eastern Africa | 63.3 | 46.1 | 49.4 | 49.5 |
| West Central Asia and Middle East | 65.0 | 52.3 | 56.8 | 59.7 |
| Eastern Asia | 72.5 | 51.2 | 57.7 | 64.8 |
| Southern Asia | 65.0 | 47.5 | 57.6 | 61.5 |
| **Canada** | 66.1 | 52.4 | 57.2 | 57.9 |

*Science*

Table 34a shows that Science participation was considerably lower than that for either Mathematics or English; 30% of students were not enrolled in a senior science course. Differences between the enrolment levels of foreign-born and native-born students in university or college programs were not large – 2% to 4%.

Within the group of foreign-born students, there were some notable differences in participation. Science enrolment for Eastern Asian students (79%) was higher than the average for foreign-born students (56%), while that of Caribbean/Bermuda students was much lower (23%). More Caribbean/Bermuda students were enrolled in a Science course in the "other" programs category (30%) than the average for foreign-born students (13%).

Table 34b shows achievement information for all TDSB programs of study, although enrolment in the mixed and workplace categories was quite low, making reliable comparisons difficult. Native-born and foreign-born differences in achievement were not noticeable across programs of study. Within the foreign-born group, those enrolled in a university program science course displayed some differences. Here, Eastern Asian students' average was 73%, while that of Caribbean students was 57%. In the college program, marks for Eastern Asian students were somewhat higher than the average for foreign-born students.

**Table 34a**
**Region of birth: Participation in grade 12 Science courses, Toronto**

| Region of birth | University-bound | | Other programs | | Not enrolled | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Outside Canada** | | | | | | |
| All | 3,366 | 56.7 | 804 | 13.5 | 1,764 | 29.7 |
| Subgroups | | | | | | |
| Caribbean/Bermuda | 151 | 23.8 | 195 | 30.7 | 289 | 45.5 |
| Eastern Europe | 358 | 63.4 | 40 | 7.1 | 167 | 29.6 |
| Eastern Africa | 143 | 44.8 | 66 | 20.7 | 110 | 34.5 |
| West Central Asia and Middle East | 256 | 47.7 | 83 | 15.5 | 198 | 36.9 |
| Eastern Asia | 971 | 79.3 | 61 | 5.0 | 192 | 15.7 |
| Southern Asia | 874 | 64.0 | 145 | 10.6 | 346 | 25.3 |
| **Canada** | 5,126 | 52.9 | 1,474 | 15.2 | 3,049 | 31.9 |

**Table 34b**
**Region of birth: Performance in grade 12 Science courses, Toronto**

| Region of birth | Average score | | | |
|---|---|---|---|---|
| | University-bound | Mixed | College-bound | Workplace |
| **Outside Canada** | | | | |
| All | 67.3 | 62.5 | 56.9 | 57.9 |
| Subgroups | | | | |
| Caribbean/Bermuda | 57.4 | 57.0 | 55.6 | 55.5 |
| Eastern Europe | 69.7 | 68.6 | 57.8 | ** |
| Eastern Africa | 60.8 | ** | 53.0 | 60.8 |
| West Central Asia and Middle East | 65.4 | 64.8 | 59.4 | 62.4 |
| Eastern Asia | 73.3 | 70.7 | 63.4 | 65.5 |
| Southern Asia | 65.5 | ** | 57.3 | 56.2 |
| **Canada** | 66.0 | 64.0 | 58.1 | 54.6 |

** Fewer than 10 students.

## CONCLUSIONS AND POLICY IMPLICATIONS

The previous sections have profiled the cohort of students who entered grade 9 in the Toronto District School Board in 2000. We have described their participation rates and their achievements in Mathematics, English, and Science. To better understand group differences in graduation rates and choice of a postsecondary pathway, we conducted a multi-level regression employing selected variables at both the individual level and the school and neighbourhood levels.

In this section, we summarize the main findings of the descriptive and explanatory parts of the study. The adaptation of non-English speakers to the TDSB and their successful progress through the system – from grade 9 to graduation – is not only of cultural interest, but also of policy importance. Based on this overview, we point to areas of opportunity and vulnerability among non-English-speaking students which should be of concern to educational decision-makers.

### Graduation highlights

The non-English-speaking students in the grade 9 cohort profiled in this study illustrate the great diversity among youth in Canada's largest city. Many are newcomers to Canada and others are the children of immigrants. Not only do they vary in their personal characteristics and situations, but also the schools they attend are varied in terms of the linguistic status and socio-economic advantages of the student body. Using graduation as the criterion, we present in Table 35 the factors that we found to be significant predictors in the regression analyses conducted with these groups. For each factor, we indicate the direction (positive or negative) of its effect on the likelihood of graduation.

**Table 35**
**Language used at home: Significant personal and contextual factors, Toronto**

| | English speakers | Non-English speakers |
|---|---|---|
| Immigrant | - | + |
| Gender (female) | + | + |
| Late entry from elementary | - | - |
| Took ESL/ESD | + | - |
| School change (1 or more) | - | - |
| Arrived from outside TDSB | - | - |
| Language composition of school (> 75% non-English) | + | + |
| School challenged | - | - |

Table 35 illustrates the many similarities in individual differences and circumstances of both English and non-English-speaking students in the TDSB. Being female is associated with a higher probability of graduating, irrespective of language spoken. This is consistent with research on male underachievement and gender differences among dropouts, which indicates that males are at greater risk for school failure. Similarly, late entry to high school (grade 9) – where this indicates academic difficulty in the elementary school – has a negative effect on both

language groups. Mobility also puts students at risk of not graduating. Irrespective of language group membership, students who arrive in grade 9 from outside the TDSB or who have changed schools are at risk. Immigrant children in particular are likely to be less "geographically settled" and while most do adjust in time, high levels of mobility affect their chances of graduation, as they do for all students.

The socio-economic status of the student body appears to be an important determinant of graduation success. Disadvantaged schools negatively affect the graduation chances of their English and non-English-speaking students. The fact that ESL instruction for non-English speakers is negatively associated with graduation suggests that such assistance is not sufficient to help students complete the program. However, English-speaking students enrolled in ESD courses – primarily Caribbean immigrant students – do appear to benefit. Our findings are not consistent with the literature on the academic returns to ESL instruction. This literature does, however, indicate that the duration of ESL/ESD instruction qualifies its effects. Unfortunately, we do not have this information.

Some factors have a differential effect on the language groups; and others represent anomalies. First, immigrant students whose home language is not English are more likely to graduate. This is consistent with the notion of immigrant "resiliency," which assumes a higher level of academic purpose among newcomer youth. To the extent these individuals are motivated to succeed in school, they will overcome any barrier that the initial lack of English language competence might pose. By contrast, being an English-speaking immigrant is a risk factor. It is not obvious why this should be the case. Region of origin may offer some explanation. The majority of youth in this category come from the Caribbean and for a variety of reasons, fail to adjust to the demands of TDSB schools.

Similarly, being enrolled in a school with a high level of non-English speakers is positively associated with graduation. Since the language of instruction is English, one would expect the teaching task for teachers to be more difficult in such schools. On the other hand, a high concentration of non-English speakers from the same ethnic groups may confer a sense of belonging and a measure of support that compensates for any language difficulties with teachers. This finding probably needs qualification, as the number of students affected is relatively small – about 18% of non-English-speaking students and 8% of English speakers.

**Participation and achievement highlights**

Achievement in the key areas of Mathematics, English, and Science is essential for graduation. It is useful therefore to summarize the performance of the academically strongest and weakest language groups in Mathematics, English, and Science. The university program nevertheless has the largest enrolment and represents the preferred pathway for most immigrant and non-English-speaking group individuals.

Table 36 illustrates both participation proportions and achievement percentages for non-English-speaking groups selected on the basis of their relative (highest vs. lowest) academic performance. In emphasizing high- and low-performing groups, we draw attention to those groups that are adjusting well (even excelling) in the high school system and those that are more vulnerable to low achievement, disengagement, and higher rates of dropout.

**Table 36**
**University program of study: Participation and performance (language groups), Toronto**

| Language Group | Math | | English | | Science | |
|---|---|---|---|---|---|---|
| | Participation | Achievement | Participation | Achievement | Participation | Achievement |
| English | 40 | 66 | 63 | 72 | 51 | 66 |
| Non-English | 56 | 67 | 68 | 72 | 61 | 67 |
| High | Chinese (77) | Chinese (71) | Chinese (81) | Chinese (74)<br>Russian (74) | Chinese (78) | Chinese (71) |
| Low | Portuguese (26) | Somali (57) | Portuguese (40) | Portuguese (63) | Spanish (29)<br>Portuguese (32) | Somali (57) |

The participation trends shown in Table 36 indicate that English-speaking students' enrolment in these senior courses was lower than that of non-English-speaking students. This is true for all subjects, but was particularly noticeable for Mathematics. Aggregate achievement levels were virtually identical in all subjects. In comparing the highest- and lowest- achieving language groups, we found that Chinese-speaking students had both very high participation rates and achievement levels. Among the more academically at-risk groups were Portuguese-, Spanish-, and Somali -speaking youth.

Exploring the basis for language-group differences in performance will require more detailed research than is possible with this analysis and with the limited number of available variables. Our subgroup analysis of the antecedents and correlates of graduation showed, not surprisingly, that contextual factors and individual differences had similar effects on all youth, irrespective of language group membership. In any event, that analysis did not include the language groups identified in Table 36 because of the limited number of cases.

In Table 37 we summarize participation and achievement for region of birth. To the extent that the language spoken in the home is a proxy for immigrant status, the information will overlap. However, knowledge of the school performance of foreign-born youth complements the analysis of language group differences – which does not distinguish first- from second-generation immigrants.

**Table 37**
**University program of study: Participation and performance**
**(region of birth groups), Toronto**

| Region of birth | Math | | English | | Science | |
|---|---|---|---|---|---|---|
| | Participation | Achievement | Participation | Achievement | Participation | Achievement |
| Canada | 42 | 66 | 66 | 72 | 53 | 66 |
| Outside Canada | 52 | 67 | 64 | 71 | 57 | 67 |
| High | E. Asia (79) | E. Asia (73) | E. Europe (75)<br>E. Asia (82) | E. Europe (75)<br>E. Asia (75) | E. Asia (79) | E. Asia (73) |
| Low | Caribbean (13) | Caribbean (58) | Caribbean (28) | Caribbean (64) | Caribbean (24) | Caribbean (57) |

Participation trends shown in Table 37 indicate higher enrolment by foreign-born students in Mathematics and Science, but not in English. The achievement levels of these groups were the same across subject areas. Within the foreign-born group, we found that students from Eastern Asia were high achievers in all subjects. Eastern European students also did well in English. Students from the Caribbean/Bermuda region had comparatively low levels of participation and achievement in all three subjects. Participation in Mathematics was particularly low for this group.

**Policy implications**

In this project we addressed the question: How are non-English-speaking and immigrant youth progressing in TDSB high schools? We found that many newcomer youth are adjusting to the demands of the school and some are even excelling in the system, while others encounter difficulties.

A first step in improving the reception and integration of these vulnerable youth is to identify which groups are vulnerable, as evidenced by low achievement and low graduation rates. The link between graduation and achievement (irrespective of program of study) is assumed, and much of our profile of TDSB students was devoted to describing student performance in the "core" subjects of Mathematics, English, and Science.

We found one group that consistently excelled in all three subject areas – Chinese-speaking students exceeded all other groups, including the native-born reference group, in participation levels and achievement in core university program subjects.

We also found several groups that were struggling to adjust to the demands of the high school and its curriculum. Some of these are newcomers. Somali- and Spanish-speaking students, for example, are relatively recent arrivals and their families have yet to settle into the community. Others, however, are more familiar with Toronto and its institutions, including the schools. The Portuguese community is well-established in Toronto, but youth from this group do not do well in the core subjects and have very high dropout rates. Similarly, English-speaking youth from the Caribbean region do not achieve high, or even average, marks in Mathematics, Science, or English and they too have high dropout rates.

Previous research has identified several risk factors that affect TDSB students. Brown (2006) reports the following personal and situational factors associated with poor graduation prospects:

- being a male student;
- entering high school after the standard age;
- not remaining in the same secondary school;
- having low levels of achievement in secondary school;
- living in a low-income neighbourhoods;
- attending a school with a low-SES student body.

These factors apply to all students, including non-English speakers and recent immigrants. Within the limits of the available data, we developed profiles of the various language and

immigrant groups to determine personal and contextual factors associated with achievement and, additionally, to examine how these factors limit graduation opportunities. We have discussed these in the previous section and simply summarize them here and comment on those that appear particularly salient in qualifying school performance.

We found that all students are at risk of low achievement and dropping out according to several "risk factors," but these factors seem to apply with particular force to vulnerable adolescents in the non-English-speaking group and among English-speaking immigrant youth.

***Individual differences***

In nearly all groups examined, girls' achievement exceeded that of boys. Gender differences are recognized in the general adolescent school population. There may be, however, a cultural overlay among some immigrant youth, as gender proportions vary by language spoken and region of origin.

Language competence is obviously a significant barrier to academic engagement and achievement. However, language alone does not explain some of the differences found in immigrant students' school performance. English-speaking adolescents from the Caribbean/Bermuda appear to find formal classroom learning difficult. And those with aspirations for postsecondary education who opt for the university program of study perform less well than other newcomer youth.

For non-English speakers, the opportunity to enrol in ESL classes influences graduation prospects. We can only assume ESL participation has a positive effect on achievement, although details such as early or late enrolment and program duration must await further research.

*School trajectories*

How individuals make the transition from elementary to high school and through the various secondary level programs of study clearly affects both achievement and graduation. Students who do not enter grade 9 at the age normally associated with the completion of elementary (or middle) school are at a disadvantage. This appears to be the result of a deficit in learning – expressed as course-credit accumulation – that results in the need to repeat courses or grades and a longer period of study in the elementary school. In the case of non-English-speaking immigrant children, this trajectory may reflect additional time needed to acquire competence in the language of instruction.

Where students studied before entering the TDSB system also influences learning. Those who enter directly from a TDSB elementary school appear to have fewer adjustment problems and achieve better results from their studies. Those entering from another jurisdiction have to make a greater adjustment, not only to the curriculum and school routines, but to their living arrangements and neighbourhood. This would affect immigrant children more than those transferring from another Canadian province or Ontario school district.

The Ontario secondary system is organized into four "programs of study." These represent tracks that prepare students for different post-high-school educational and occupational paths. Each

reflects a student's preference as well as his or her abilities. Most youth are interested in attending university, but many favour college and a quicker entry to the workforce. Others wish to bypass the postsecondary system and instead enter the labour market directly. For those students, there are many employer-sponsored training opportunities, including a range of apprenticeship programs.

The courses associated with the various programs of study differ in their level of difficulty. This effect is, however, less marked in the TDSB, because of the variety of courses on offer and some overlap in tracks, such as the mixed program of study, which allows the student to prepare for either university or college.

*Family resources*

Income is a measure of a range of family resources available to children. Higher levels of income are usually associated with higher levels of parental education. These families possess not only material advantages, but have access to forms of cultural and social capital that facilitate their children's school adjustment and success.

This relationship is more complicated for immigrant families. Many immigrant parents are highly educated and skilled, but cannot find stable employment. While economically hampered, these parents nevertheless reinforce work habits in their children that underlie academic effort and success.

*School context*

The Learning Opportunities Index (LOI) used by the TDSB provides a general index of the socio-economic status of the student body in a school. School socio-economic status can influence the attitudes, aspirations, and work habits of individual students. This effect operates through various mechanisms, but peer influence in particular is critical in adolescent culture. For recent non-English-speaking and immigrant youth, acceptance and friendships are in many ways prerequisites to academic engagement.

The proportion of non-English-speaking students in a school was treated as an important contextual factor, given the level of diversity in the TDSB student body. Many students do not speak English as their first language. Since English is the language of instruction in classrooms, both teaching and learning are more difficult in these schools, given the potential for miscommunication.

To examine this issue, we assessed the effects on graduation rates (and program-of-study choice) of non-English-language concentration in schools. The analysis was performed separately for English and non-English-speaking groups – with somewhat anomalous results. Using schools with relatively few non-English speakers (0-25%) as a reference, we found no major differences for schools with 26% to 75% non-English speakers. However, there was a significant effect for both language groups in schools with high concentrations of over 75% non-English speakers.

In the case of non-English-speaking groups, we surmise that a high concentration of non-English-speaking students offers a cultural and social environment that supports learning well

enough to overcome language barriers. Why English-speaking students would benefit from attending a school in which their fellow students were largely non-English-speaking is less clear. While the number of English-speaking students involved constituted a relatively small proportion of the total English-speaking group (8%), the numbers were adequate for reliable statistical analysis.

This study was designed to accommodate the requirements of a pan-Canadian comparison. We nevertheless have been able to profile the dimensions of vulnerability among non-English-speaking and newcomer youth in Toronto. The identification of vulnerable groups argues for the strategic use of resources to improve conditions that contribute to academic engagement and achievement.

While our analysis of survey data lacks diagnostic detail, we can link our profile with qualitative work that has similarly identified vulnerable immigrant youth in the Toronto region. Koc & Nunes (2001) recently interviewed immigrant adolescents to identify both the barriers they faced and the (implied) opportunities they perceived for successful integration in Toronto schools. It is clear from their assessment that social institutions such as family, school, and community are linked in relations or partnerships that affect the lives of newcomer adolescents. We summarize these below in a list that links individual or personal requirements to one of three key social institutions – family, school, and community – that are central to newcomer adolescents' adjustment.

**Family**

- Significant loss of family and friends through migration
- Family instability and deprivation
- Poverty
- Unstable housing
- Limited awareness of support services

**School**

- English language deficiencies
- Arbitrary school grade placement
- Racist and discriminatory experiences in school

**Community**

- Limited employment skills
- Confinement to unstable, low-wage employment
- Minimal support network
- Limited substance abuse assistance

This list provides clues for devising strategies that may encourage greater school engagement and lower dropout rates among specific immigrant groups from diverse countries of origin. For instance, students from the Caribbean are significantly more likely to enter school one year late, live in alternative family structures, find themselves placed in non-academic streams, and be at risk of not completing their course of study.

Many of these risk factors respond to change when schools work effectively with students and their families. Special transition-year programs could be considered for students who enter a school late in order to meet their needs and improve their adaptation to the social and academic life of Canadian schools. For example, "buddy" or "mentor" systems, which have been found to work well in the Host program funded by Citizenship and Immigration Canada, could be introduced and periodically evaluated. School counsellors could be called

upon to work alongside buddies and mentors to address issues of adaptation and school risk factors noted in our analysis of dropout.

Another program that has had very promising results is Pathways to Education. This program started in the TDSB around the time of this cohort study in the Regent Park area, and has since expanded to several other areas in Toronto, such as Lawrence Heights. This program evaluates all students going from grade 8 into grade 9 and provides an arsenal of supports for all students in the area while they are in Toronto secondary schools. The program is not specifically targeted at immigrant youth, but it is worth studying to see what would work best with high-risk immigrant youth populations. By working closely with the families, some success may be achieved in supporting and encouraging these vulnerable youth.

The voices of immigrant youth and the current institutional responses call for further detailed investigation of the process of school integration by immigrant adolescents of increasingly diverse cultural and linguistic heritage. Our analysis complements this existing work and points to much-needed future research.

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## CERIS - The Ontario Metropolis Centre

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CERIS - The Ontario Metropolis Centre is a collaboration of Ryerson University, York University, and the University of Toronto, as well as the Ontario Council of Agencies Serving Immigrants, the United Way of Greater Toronto, and the Community Social Planning Council of Toronto.

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# The Metropolis Project

Launched in 1996, the Metropolis Project strives to improve policies for managing migration and diversity by focusing scholarly attention on critical issues. All project initiatives involve policymakers, researchers, and members of non-governmental organizations.

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