Articles

ADULT IMMIGRANTS' PARTICIPATION IN CANADIAN EDUCATION AND TRAINING¹

Maria Adamuti-Trache University of British Columbia

Robert Sweet
Lakehead University

Abstract

Many newly arrived adult immigrants enroll in post-secondary institutions and adult education training programs in search of Canadian credentials that would improve their career opportunities. In this study, we examine the antecedents and correlates of participation in education and training by adult immigrants who arrived in Canada between October 2000 and September 2001. We employ two waves of the Longitudinal Survey of Immigrants to Canada (LSIC), which provides extensive information on the education, work experience, and family situations of immigrants for the two-year period following their arrival. We adopt Cross's (1981) model of adult education participation, and identify relevant individual, situational, dispositional, and immigrant-specific factors to predict participation. We find that, in addition to factors generally recognized in the literature as affecting participation, immigrants' decisions to participate in education and training are significantly affected by personal and situational features of the immigrant settlement process.

Résumé

Nombreux nouveaux immigrés adultes s'inscrivent dans des institutions postsecondaires, ou dans des programmes de formation continue à la recherche des diplômes qui amélioreraient leurs possibilités de carrière. Dans cette étude, nous examinons les facteurs antécédents et corrélatifs de cette participation dans le processus d'éducation ou de formation continue dans le cas des immigrés adultes arrivés au Canada entre octobre 2000 et septembre 2001. Nous utilisons

¹ This study was funded by a contribution from the Canadian Council on Learning.

deux cycles de l'Enquête longitudinale auprès des immigrants du Canada (ELIC) qui fournit des informations sur le niveau d'éducation, l'expérience de travail et les situations familiales des immigrés adultes pendant les deux années suivant leur arrivée au Canada. Nous adoptons le modèle de participation des adultes à des activités de formation proposé par Cross (1981) et identifions les facteurs qui sont spécifiques à la participation des immigrés adultes. Nous concluons qu'à part les facteurs généralement reconnus par la littérature de spécialité comme influençant la participation des adultes, les conditions personnelles et situationnelles du processus d'installation au Canada influencent la décision des immigrés adultes de suivre une formation.

Introduction

Through the 1960s and 1970s, Canada's immigration policy attempted to serve the needs of the economy and society by recruiting skilled workers who were able to obtain well-remunerated jobs and reach a level of prosperity comparable to that of native-born Canadians. Since that time, however, the integration of immigrants into the Canadian labour market has been less successful (Aydemir & Skuterud, 2004). Most recent immigrants obtain employment soon after arrival, but all too frequently, they are underemployed (i.e., they work in the low-wage sector) and/or their skills are underutilized (i.e., they find jobs in occupations less related to prior skills). The explanations advanced in the literature for declining economic success among immigrants are complex (see, for example, Reitz, 2007). However, the most consistent claims are the failure to gain recognition of foreign education credentials and the inability to offset this with evidence of relevant foreign work experience. Canadian employers' reluctance to recognize immigrants' educational credentials has been exacerbated by recent changes in immigration source countries. Europe is no longer the major source of immigration to Canada. Increasingly, new arrivals are from East and South Asia, the Middle East, and Latin America. Immigrants are often from countries with educational systems that do not share the cultural origins and orientations of Canada's post-secondary system, nor are the curricular structures of their post-secondary institutions similar (Hawthorne, 2007).

To overcome employers' reservations regarding the recognition of foreign credentials and/or prior work experience, immigrants often choose to engage in further education in Canada. Two-thirds of the immigrants who arrived in Canada between October 2000 and September 2001 indicated they had plans to pursue education and training in Canada. Upon their arrival, immigrants focused on improving their language skills, as two-thirds of them enrolled immediately in language courses. Although 68% of those who planned further education arrived in Canada with a university degree and 15% had other post-secondary education, many newcomers were interested in education leading to credentials or in job-related training that would presumably improve their employment chances (Statistics Canada, 2005).

The purpose of this study is to examine the basis for adult immigrants' decisions to participate in education and training within two years of arriving in Canada. The study employs data from the first two *Longitudinal Survey on Immigrants to Canada (LSIC)*

interviews conducted six months and two years after arrival, and thus captures immigrants' early contact with the Canadian education and training system. We assume that enrolment in further education and training is part of an individual immigrant's settlement strategy. These strategies involve family relations and settlement in the community, but are, in the first instance, concerned with establishing the individual in the labour market. Education at this juncture in immigrants' lives is, then, primarily directed toward obtaining credentials that will be recognized and rewarded by employers.

Immigrants represent a recent addition to non-traditional adult learners in Canada (Schuetze & Slowey, 2000). They differ in many respects from the established profile of the adult learner in Canada. At the same time, immigrant and non-immigrant adult learners share many characteristics, goals, and needs. To better understand the basis for immigrants' decisions to participate in adult education programs, we employ a conceptual framework that accommodates a range of individual, situational, and dispositional factors (Cross, 1981). Research associated with the Cross model has identified several antecedents and correlates of participation in education and training. These typically describe a process of overcoming barriers or, conversely, as taking advantage of "opportunity structures" (Hum & Simpson, 2003; Rubenson, 2001). Consistent with this work, we examine adult immigrants' education participation rates in relation to social structural factors, work and family situations, and dispositions toward education. To these established predictors of participation in education and training by adults, we add several factors unique to immigrants. These include personal resources such as foreign educational credentials, language proficiency, immigration class, and country of origin. We also examine reported employment experiences in Canada and preferences for different types of educational or training programs in the host country, and thus elaborate Cross's model to reflect the uniqueness of immigrant life-course circumstances. The Discussion section includes useful information of participation rates by adult immigrants that are relevant to policy and practice.

Background

Finding employment is the first task facing newcomers, and is achieved by most immigrants. In 2000–2001, labour market entry data show that 44% of newcomers found work six months after arrival (Statistics Canada, 2003a) and 80% of immigrants aged 25 to 44 had worked in at least one job during the first two years in Canada (Statistics Canada, 2003b). However, immigrants have been less successful in obtaining employment commensurate with their qualifications. Of those employed, only 42% found a job in their intended occupation within two years of arrival. Percentages are higher among skilledworker principal applicants aged 25 to 44. Some 48% in this category found a job in their intended occupation.

Irrespective of occupational category, there seem to be different returns to education for recent immigrants and native-born Canadians. Immigrant earnings are significantly lower than comparably educated Canadians, and this gap persists for many years after arrival (Anisef, Sweet, & Frempong, 2002; Ferrer & Riddell, 2008; Reitz, 2001). The reasons for this are complex, but research points to several problem areas, including language competence, the country or region in which one received a post-secondary education, rigid and biased hiring practices that lead to the discounting of foreign credentials, and

competition from native-born youth with improved levels of education (Bauder, 2005; Mata, 2008; Reitz, 2007; Teelucksingh & Galabuzi, 2005). Human capital theory that is based on the assumption that more education leads to better earnings (Schultz, 1961) has been critiqued for not recognizing the effect of other forms of capital (e.g., social capital) and social structural factors (e.g., gender) on earnings (e.g., Lin, 2001; Shannon & Kidd, 2001). Since foreign human capital is often discounted in the host country, this results in poor returns to education for newcomers.

It is not, then, surprising that many immigrants decide to continue formal learning to avoid the downgrading of their previous occupational status. At time of arrival, approximately two-thirds of new immigrants had plans to take education or training, and 67% of intenders actually started education within six months of arrival. Of those who participated, some 20% were enrolled in education leading to a degree or diploma, approximately 10% in job-related training, and over 70% in language courses (Statistics Canada, 2005). Obtaining educational credentials that signal the possession of workrelevant knowledge or skills appears a rational strategy with which to enhance employment prospects and develop a new career path. Canadian research on the returns to host-country credentials, while limited in scope and number, nevertheless establishes their value in the labour market (Banerjee & Verma, 2009; Gilmore & Le Petit, 2008; Statistics Canada, 2008). For instance, immigrants who have Canadian university education are generally well-positioned in the labour market (Adamuti-Trache & Sweet, 2005; Sweetman & McBride, 2004). These positive findings are consistent with similar research in other countries that demonstrates that formal education and training in the host country enhances immigrants' employability (Bratsberg & Ragan, 2002; Chiswick & Miller, 1994; Duleep & Regets, 1999; Duvander, 2001; Hashmi-Khan, 1997; Van Tubergen & De Werfhorst, 2007).

Adult immigrants' choices of learning in formal contexts should be situated within the current Canadian social, political, and economic context. In Canada, several avenues are available to those who wish to acquire advanced degrees or diplomas. These include a network of universities and colleges as well as an extensive vocational system comprising technical institutes and private training schools. Although such opportunities are open to adult learners (Canadian Council on Learning, 2006), and job-relevant programs that may appeal to newcomers are widely available and accessible in all these institutions, there remain many barriers to participation by immigrants. Hum and Simpson (2003) used the Adult Education and Training Survey (AETS) to investigate the workrelated training and education activity of foreign and native-born workers in Canada. They found that immigrants who arrived as adults receive less training than those who arrived as children or the native-born. The authors reported that, when asked about barriers to education and training, immigrants first reported financial constraints, followed by a lack of time, convenience, and availability. Among women, family responsibilities were also frequently reported as reasons for not participating in work-related training. Banerjee and Verma (2009) examined immigrant access to Canadian education and training using the Longitudinal Survey of Immigrants to Canada (LSIC). They too found social structures (e.g., gender) to be important predictors of participation. Financial capacity (as defined by savings at arrival) was not predictive of participation in this study. However, Sweet (2008) compared employer-sponsored financing of immigrant and native-born training using data from the 2003 AETS and the LSIC and found a much lower level of support for immigrants.

Immigrants appear to view the acquisition of Canadian education and training as an effective strategy for enhancing workplace integration. While research on the economic returns to this form of investment appears positive, less is known about the factors that motivate adult immigrants to pursue education and training in Canada. The available evidence suggests that many of the antecedents and correlates of participation found in the adult education literature apply in the immigrant case. However, pre-migration factors, such as prior level of education, language proficiency, entry class, and cultural differences, as well as the settlement experience itself, indicate that immigrants face unique challenges (Banerjee & Verma, 2009). A particular role is assigned to dispositional factors that reflect the immigrant perspective on the importance of Canadian education and the usefulness of different types of education (Adamuti-Trache, 2008a). These factors need to be incorporated in a more inclusive analytic framework if we are to better understand the access to education and training process as experienced by recent immigrants, and engage adult educators in devising means to support adult immigrants' participation.

Method

A Participation Framework

A conception of adult education participation that accommodates individual life-course histories and includes differing opportunity structures is Cross's (1981) Chain-of-Response (COR) model. The basic elements in the COR model include self-perceptions, a rational choice (expectancy-value) analysis of participation, and a taxonomy of opportunities and barriers that vary by individual and, necessarily, across transition points in the life course.

The COR opportunity structure categories are situational, dispositional, and institutional. Situational factors include time availability and intrinsic interest in enrolling in a course or program. They also include the extent of financial support available for training from employers or through union membership, as well as marital status and the presence of dependent children or parents. Dispositional factors typically involve a stated purpose for training—i.e., whether for work-related or leisure reasons—the individual's training goal, which usually is expressed in terms of the type of credential sought and whether following an instrumental purpose; and finally, the encouragement and support provided by employers, family, or friends. Institutional factors can include the type of programs or courses on offer, their duration, and the type of instructional media employed.

The Cross model has served as an explanatory framework for participation research in several adult education studies (Kasworm, 2001). Other participation models have dealt more explicitly with socio-economic disadvantage, financial issues, or the conditions of learning in post-secondary institutions and the workplace (Aslanian & Brickell, 1980; Betcherman, Leckie, & McMullen, 2000; Rubenson, Desjardins, & Yoon, 2007; Schuetze, 2005). The COR model incorporates many of these social and institutional factors while, at the same time, acknowledging the importance of individual dispositions—presumed to be shaped by personal histories, especially the individual's prior experiences

with learning. By emphasizing the nature of dispositions toward learning among adults, the model considers not only the supply of learning opportunities but also the nature of individual demand for further learning (Rubenson & Schuetze, 2000). Some modification of the original model is nevertheless necessary to accommodate the case of adult immigrant learners. Factors typical of employed adults and often included in the Cross typology may not be applicable to immigrants who are in the process of entering the labour market (e.g., union membership), while other immigrant-specific factors that reflect government policy on immigrant selection category and country of origin need to be incorporated within the model for analysis of our sample. Nevertheless, we propose that Cross's model is able to capture a diverse population of potential adult learners, including immigrants.

Data

The data employed in the study were drawn from the *Longitudinal Survey of Immigrants to Canada (LSIC)*, conducted by Statistics Canada and Citizenship and Immigration Canada under the Policy Research Initiative. The survey is based on a longitudinal design and follows a sample of new immigrants and refugees aged 15 years and older who arrived in Canada between October 2000 and September 2001. The first wave of interviews was conducted about six months after arrival to Canada, and the same respondents were contacted again approximately two years and four years after their arrival. The current study is based on Wave 1 and Wave 2 *LSIC* data, which allows us to draw a picture of the early settlement experience of newcomers within two years of arrival.

Sample

The working sample was defined based on the following criteria:

- Respondents who never lived in Canada before immigration, and
- Respondents between 25 and 49 years of age at arrival to Canada.

The residency selection ensures that the analysis includes individuals who did not benefit from any Canadian education or work experience, or even prior familiarity with Canadian society. For instance, this selection excludes international students in Canada or individuals who worked in the country before applying for immigration. The age selection favours the prime working-age population (25 to 44) and extends the age to 49 to align to the current immigration point system (i.e., age above which applicants lose points). The minimum age of 25 ensures that immigrants are old enough to have completed post-secondary education and/or had some work experience. The research sample consists of 6,000 adult immigrants.

Variables

The outcome variable in this study is participation (or not) in at least one educational event within two years of arrival. We do not qualify respondents' participation decisions with information about program duration or field of study, but exclude language training (Banerjee & Verma, 2009). Although we acknowledge that the type and duration of educational events would be an indication of short- or long-term commitment, in this study

we focus on engagement in any educational event, regardless of duration, as a sign of immigrants' awareness of existing educational opportunities. While language training and cultural orientation programs are important elements in the successful settlement plans of recent arrivals, English or French language competence is assumed in the labour market and functions as a prerequisite to pursuing further education. Our primary interest, therefore, is in examining the antecedents and correlates of immigrants' decisions to participate as a response to the problem of credential non-recognition. That response involves enrolment in programs that offer post-secondary credentials or job-related skill development. In addition, the majority of immigrants take some language training (Statistics Canada, 2005), so the inclusion of language training in the study may skew the results.

Consistent with Cross's COR model, variables predicting participation are classified as individual, situational, and dispositional. The choice of variables is limited by the *LSIC* design. For example, a number of questions that describe possible institutional factors were answered only by participants, and thus cannot be used in building a participation model that includes all respondents. However, factors relevant to the application process and early integration of newcomers in the Canadian labour market will be included in the analysis as immigrant-specific factors.

Individual factors.

Age and gender are typical demographic variables employed to differentiate participation and supported by theories that emphasize social structures and life-course cycles. In this study, age is aggregated into four categories spanned over five years each, except for the older group, which includes those aged 40 to 49 to reflect the current age extension in the point-system immigration policy. Another social structural factor indicates visible minority status.

Among individual factors, we include variables that indicate immigrant human capital. Educational level prior to arrival and whether education was obtained in one of Canada's official languages are important criteria in the Canadian point system of immigrant selection. Higher levels of education and language proficiency are also expected to support immigrants' successful economic integration. These factors also influence the decision to engage in further education and training in Canada. Educational level is measured by a three-category variable (i.e., high school and below, non-university, university). Prior education in English or French is an indicator of language familiarity. Self-reported language proficiency is measured as an aggregate of ability in reading, writing, and speaking English or French. This forms a scale running from 1 to 4. Language proficiency in any of the two official languages is obtained as the maximum score in one of the two official languages.

Situational factors.

Situational barriers to learning arise from one's life circumstances. Current employment status determines income levels and describes the respondent's ability to finance further learning. Other deterrents to participation by adults are related to their family situation (e.g., marital status, dependent children). These are typical barriers employed in adult education participation models.

Although candidates for immigration acquire points for their foreign work experience, many adult immigrants experience significant obstacles to finding employment upon arrival due to a lack of Canadian work experience. Research shows that Canadian educational qualification and number of years of Canadian work experience improve earnings (Adamuti-Trache & Sweet, 2005). To overcome this problem, adult immigrants adopt various strategies. Some engage in volunteer activity to obtain informal learning and increase employability in their occupations (Slade, Luo, & Schugurensky, 2005). We also anticipate that many of those who do not succeed in having their prior work experience accepted by Canadian employers will turn to further education and training. Recognition of prior work experience is described by a three-category variable that indicates whether immigrants never tried to have their work experience assessed, or tried and found their work experience was (or was not) accepted.

Dispositional factors.

Dispositions toward learning as a means of coping with immigrant employment and settlement issues were inferred from the type of education and training immigrants believe would be useful to pursue. These are defined in terms of specific program types and represent a set of intentions or goals rather than actual participation behaviours (Ajzen & Fishbein, 1980). Interest in language programs is included to distinguish this option from those that confer a degree or diploma. In addition, the importance assigned to Canadian education—as a measure of the symbolic value attached to host-country credentials—is expected to be central to one's decision to engage in further schooling.

Immigrant-specific factors.

Prior level of education and language proficiency reflect pre-immigration conditions and are essentially personal factors, while those included in the immigrantspecific group are related more to the circumstances under which immigration has occurred. Cultural differences between country of origin and the host country also are included in this category. The immigration class under which individuals arrive in Canada is of great importance because it differentiates the immigrant population in terms of expected adaptability to Canadian society. For instance, provincial nominees may already have secured jobs at arrival. Those in the family class came into an already settled environment, and may benefit from greater social capital and less immediate pressure to find jobs. Other immigrants (e.g., refugees) may be the least prepared for immigration in terms of prior education, since no selection criteria are applied and their financial situations and emotional states are often precarious. Skilled-immigrant principal applicants, who represent the largest group, were admitted based on their level of education, language skills, work experience, and occupation, so one would expect these attributes would facilitate a rapid economic integration in Canada. Skilled workers' spouses or dependents do not undergo the same selection process and so form a distinct category.

The country of last permanent residence is also expected to have an impact on individual ability to integrate in Canada, and implicitly to influence an immigrant's decision to pursue education. For instance, immigrants who lived in the United States, United Kingdom, or Western Europe are familiar with Western culture and the notion of the free market. Their prior credentials and work experience are more likely to be accepted

by Canadian employers who are familiar with credentials from these traditional immigrant source countries (Mata, 2008). By contrast, employers often display real reservations in accepting the credentials and work experience of newcomers from other parts of the world. Reitz (2001, 2005) and others have addressed this problem of credential recognition from both the employers' and immigrants' viewpoint, and note that it remains a contentious issue.

Research Questions

Overall, 40% of the respondents participated in education and training offered by post-secondary institutions and other providers (e.g., employer, professional associations). Data show that another 46% of respondents intend to take education or training in the future, which leads to a very large proportion of 86% of immigrants planning to obtain Canadian education. For the purpose of this paper, intenders are considered non-participants.

We address the following research questions:

- Are there differences between the profiles of participants and non-participants across individual, immigrant-specific, situational, and dispositional factors?
- What is the relative contribution of these factors in predicting participation?
- How are participation rates related to immigrant-specific factors that are relevant to policy and practice?

Findings

We first describe the profiles (e.g., demographics, immigration factors, employment, life-course circumstances, disposition toward learning) of the two groups compared in this analysis: adult immigrants who participated and those who did not participate in education and training. Second, we develop a model of participation in education and training. Results are presented according to Statistics Canada data requirements.²

Comparison of Participant and Non-participant Groups

In this section, we contrast the profiles of participants and non-participants by several attributes organized by Cross's COR model typology. In addition, we consider the effect of variables that are specific to immigrants. These indicate the basis of their arrival to Canada (i.e., immigration class), or indicate their cultural and socio-political background (i.e., country/region of origin). Table 1 contains bivariate analyses to compare proportions or means by participation status. To find whether there are statistical significant differences between the two groups for each variable, we used the chi-square test for proportions and ANOVA tests for means.

² Counts are rounded to the nearest ten and proportions to the nearest unit. Means (and standard deviations) are rounded to the nearest tenth.

 Table 1

 Descriptive Statistics (Proportions/Means) of Variables Used in the Analysis (N=6000)

Variables	Categories	Non- participants (N=3600)	Participants (N=2400)
Sex (**)	Male	.47	.57
	Female	.53	.43
Age (**)	25–29	.23	.25
	30–34	.28	.35
	35–39	.22	.22
	40–49	.28	.18
Visible minori	ty (ns) No	.81	.79
	Yes	.19	.21
Prior level of e	education (**)		
	High school or less	.18	.05
	Non-university credential	.21	.17
	University degree	.60	.78
Prior educatio	n in English (ns)		
	No	.61	.59
	Yes	.39	.41
Prior educatio	n in French (**)		
	No	.94	.89
	Yes	.06	.11
Proficiency in o	ne of Canada's official languages (**)		
	(Scale 1 to 4)	2.8	3.2
Immigration c	lass (**)		
	Skilled worker — PA	.36	.58
	Skilled worker — SP/DEP	.30	.27
	Other economic group	.07	.02
	Family	.20	.10
	Other immigrants (refugees)	.07	.04

Region of last p	permanent residence (**)		
_	US/UK/Oceania	.06	.05
	W/S/N/Central Europe	.08	.06
	Eastern Europe	.07	.10
	Central/South America	.05	.06
	Middle East	.11	.09
	East/Southeast Asia	.35	.38
	South Asia	.23	.15
	Africa	.07	.12
Current emplo	yment Wave 2 (**)		
	Employed FT	.55	.48
	Employed PT	.08	.13
	Unemployed/look for job	.16	.21
	Unemployed/no job search	.21	.18
Prior work experience accepted in Canada (**)			
	Have not tried/never employed	.32	.20
	Have tried/work exp not accepted	.33	.47
	Have tried/work exp accepted	.35	.33
Married (**)	No	.09	.15
	Yes	.91	.85
Children (**)	No	.23	.35
	Yes	.77	.65
Type of educati (Wave 1) (**)	ion/training that would be useful		
	Language training	.42	.22
	Program/degree	.23	.43
	Job-related	.29	.33
	None/other	.06	.03
Importance of	Canadian education (**)		
	(Scale 1 to 4)	3.6	3.7

^{*}p < 0.05; **p<0.001

A summary of findings indicates:

- The gender distribution shows that male immigrants predominate in the participant group (57%) while women are more represented in the non-participant group (53%); the association between gender and participation status is statistically significant.
- Age differences are statistically significant. Among non-participants, 28% are in the age group 30–34 and 28% in the age group 40–49, while among participants, 35% are in the age group 30–34 and 18% in the age group 40–49. The other two age groups are comparably represented among both participants and non-participants.
- There is no significant difference in the representation of visible minority immigrants in the two participation groups.
- There is a significant trend that participation in education and training increases with the level of education obtained by immigrants before arrival. While among non-participants, 18% have high school or less, 21% have non-university education, and 60% have university education, these proportions are 5%, 17%, and 78%, respectively, among participants.
- There is little difference between the participation profiles for those who obtained their prior education in English. However, 6% of non-participants as compared to 11% of participants obtained their prior education in French. It is more likely for those coming from Francophone countries to engage in education and training in Canada after arrival.
- Language proficiency in at least one of Canada's official languages is definitely
 an asset when deciding to take more education and training.³ Those who
 participate in education and training make more positive self-assessments of
 their language proficiency.
- Data show very dissimilar patterns by immigration class. Sixty-six percent of non-participants as compared to 85% of participants were immigrants admitted under the skilled worker category, either as principal applicants or spouses and dependents. In contrast, 7% of non-participants as compared to 2% of participants were economic immigrants who arrived in Canada with arranged jobs or business opportunities.
- Differences by region of origin are also significant. The least represented among participants are immigrants from Anglophone countries (e.g., the United States, the United Kingdom, etc.) or from Western Europe. Also underrepresented among participants are immigrants from the Middle East and East/Southeast Asia. On the contrary, immigrants from Eastern Europe,

³ It certainly depends on the province of settlement to maximize the effects of language proficiency. However, it is likely that immigrants make their initial settlement choice based on the language that the principal applicants or most of the family members know better.

other Asian countries, and Africa are more likely to engage in formal and non-formal education in Canada.

- Employment patterns during Wave 2 are significantly different for non-participants and participants. Fifty-five percent of non-participants compared to 48% of participants were employed full-time, while 8% of non-participants compared to 13% of participants were employed part-time. Among participants, 21% were unemployed and actively looking for jobs as compared to 16% of non-participants. Some 18% of participants compared to 21% of non-participants were not in the labour force.
- There is a significant association between participation and acceptance of prior work experience. Thirty-two percent of non-participants compared to 20% of participants did not attempt to have their work experience accepted (or were never employed). In contrast, 33% of non-participants compared to 47% of participants unsuccessfully tried to obtain acceptance of their work experience.
- Data show that the non-participant group has higher proportions of immigrants who are married (91% versus 85%) and have dependent children (77% versus 65%).
- Respondents reported in Wave 1 which type of education and training would be more useful to them. Interest in language training was expressed by 42% of non-participants compared to 22% of participants. Some 23% and 29% of non-participants compared to 43% and 33% of participants were motivated to pursue degrees and take job-related training, respectively. Both participants and non-participants expressed interest in language acquisition/improvement. We may infer that those who engaged in other forms of education and training within two years of arrival had better language skills, since, in Wave 1, fewer expressed a particular interest in language training.
- Finally, those who participated in education or training assigned a slightly higher importance than non-participants to the relevance of Canadian education.

Table 1 contains an unadjusted comparison of all variables by participation in education and training in Canada. The profiles of adult immigrant participants and non-participants show clear differences by demographic and human capital characteristics, lifecourse circumstances, positioning in the labour market, and educational purpose.

Basis for Education and Training

In this section, we perform a multivariate analysis to model the likelihood of pursuing education in Canada as predicted by individual, immigrant-specific, situational, and dispositional factors. Table 2 presents the results of the full logistic regression model.

Individual factors.

When controlling for all factors, gender, age, and visible minority do not have a strong effect on participation. Women are slightly less likely to participate, as are immigrants above 40 years of age and those who are a visible minority. Prior level of education plays the most significant role in participation. Compared to respondents with high school education or less, the likelihood to participate is 1.63 and 2.06 times higher for non-university and university-educated people, respectively. Gender and age effects become non-significant in the multivariate model because these factors interact with prior level of education. As shown in a previous analysis based on the same data (Adamuti-Trache & Sweet, 2007), age and gender differences by prior level of education are pronounced.⁴ When we control for the latter factor, the participation rates within the same level of education by gender (or age) become closer.

Having pursued prior education in English or French (i.e., likely to possess credentials from countries or recognized institutions that deliver education in English or French) is not a significant predictor of participation. Still, higher language proficiency in one of Canada's official languages increases by 9% the likelihood to be involved in education and training.

Immigrant-specific factors.

These factors are directly related to immigration policy and trends, so they are particularly important to understanding immigrant settlement. First, the model shows the relevance of immigration class, and confirms that skilled-worker principal applicants are active in pursuing education. Those who immigrated in other economic classes (i.e., business immigrants and provincial or territorial nominees) likely arrived in Canada as investors or with job arrangements, and are almost four times less likely to continue education as compared to the reference group. Skilled-worker principal applicants are almost twice as likely to pursue education as compared to immigrants in the family class, and about 1.5 times as likely to do so as refugees or spouses and dependents of skilled workers. It is known that skilled-worker principal applicants are also the most active in the labour market, since 90% of them found employment during the first two years of arrival (Statistics Canada, 2005).

For instance, the proportions of immigrant men and women with prior high school, non-university, and university education are 9%, 16%, and 75% versus 17%, 23%, and 60% (data available upon request).

Table 2Basis for Education and Training (n=6000); Logistic Regression Model (No Participant=0; Participant=1)

Variables	Reference categories and levels	Odds ratio		
INDIVIDUAL				
Sex	Male=ref	.97		
Age	Age 25–29=ref			
Age (1)	Age 30–34	1.17		
Age (2)	Age 35–39	1.10		
Age (3)	Age 40–49	.90		
Visible minority	No=ref	.88		
Highest level of prior education	HS and less=ref			
Education (1)	Non-university credential	1.63*		
Education (2)	University degree	2.06**		
Prior education in English	No=ref	1.00		
Prior education in French	No=ref	.98		
Proficiency in one of Canada's official languages	Ordinal variable	1.09*		
IMMIGRANT-SPECIFIC				
Immigration category	Skilled worker — PA=ref			
Category (1)	Skilled worker — SP/DEP	.71**		
Category (2)	Other economic group	.29**		
Category (3)	Family	.52**		
Category (4)	Other immigrants (refugees)	.71		

W/Central/ Europe Eastern Europe Central/South America Middle East East/Southeast Asia	.69 1.07 1.16 .65*			
Central/South America Middle East East/Southeast Asia	1.16 .65*			
Middle East East/Southeast Asia	.65*			
East/Southeast Asia				
~	.87			
South Asia	.62*			
Africa	1.28			
mployed FT=0				
Employed PT	2.31**			
Unemployed/look for job	1.67**			
Unemployed/no job search	1.70**			
lave not tried=ref				
Tried/not accepted	1.62**			
Tried/accepted	1.19			
ot married=ref	.95			
lo=ref	.70**			
DISPOSITIONAL				
anguage training=ref				
Program/degree	2.50**			
Job-related	1.83**			
None/other	1.40			
ordinal variable	1.32**			
	.09**			
Model Chi-Square 774.5**				
	.20			
	South Asia Africa mployed FT=0 Employed PT Unemployed/look for job Unemployed/no job search ave not tried=ref Tried/not accepted Tried/accepted ot married=ref o=ref Program/degree Job-related None/other			

^{*}p < 0.05; **p<0.001

Region (country) of last permanent residence plays some role in the likelihood of post-secondary participation. Compared to the Anglophone reference group (i.e., immigrants from the United States, the United Kingdom, Australia, New Zealand), immigrants from Western European countries, the Middle East, and South Asia are about 30% less likely to take more education in Canada. Similarly, the likelihood of participating is slightly lower for the East and Southeast Asian immigrants. This contrasts with immigrants from Eastern Europe, South and Central America, and Africa, who are more likely to participate. There is a notable contrast between immigrants from Africa, who are about 30% more likely to engage in education, and those from South Asia, who are about 40% less likely to participate.

Situational factors.

Employment-related factors are salient among situational variables. As expected, employment status at the time of the second survey is a critical determinant of participation; all groups who do not have a full-time job are more likely to seek further education. Compared to the reference group, the two unemployed groups (i.e., those looking for a job or involved in other activities) are about 70% more likely to participate in education. However, part-time workers are the most likely to participate (i.e., 2.3 times) because they might have an optimal mixture of time availability, financial resources, and understanding of education usefulness. Also, those who tried to obtain recognition for work experience and did not succeed are about 60% more likely to take education compared to immigrants who never attempted to have their prior work experience evaluated (e.g., did not look for a job or did not negotiate). Family obligations (i.e., having dependent children) decrease the likelihood of participation by about 30%, while marital status makes no significant contribution.

Dispositional factors.

These variables describe educational motivations and belief in the importance of Canadian education. Questions about possible educational interests are asked six months after arrival of all respondents, regardless of their actual involvement in education. Those who wanted to pursue degrees were 2.5 times more likely to actually participate in education within two years of arrival than those interested in language training. Similarly, the odds ratio for participation is about 1.8 for those interested in job-related training. Finally, there is a significant relationship between participation and a belief that it is important to obtain Canadian education and training.

The adult immigrant participation model explains 20% of the variability in the outcome—participation in education and training after arrival to Canada. It shows the importance of immigrant-specific, situational, and dispositional factors, all of which appear to be more significant than social structural factors. Also, among individual variables, prior level of education, which actually differentiated immigrants at arrival, appears to be a most important determinant of further education in Canada. Immigrant-specific factors can be defined at the boundary between individual and situational characteristics. Thus, immigration class and source country are personal attributes, but may also uniquely position immigrants with respect to the labour market. For instance, economic immigrants admitted as provincial nominees already have their work experience recognized and, because

they have secure jobs, are less likely to take more education. The decision to seek more education by skilled-worker principal applicants occurs at the intersection of employment circumstances, effort to have work experience accepted, and family obligations. Significant effects on participation are due to dispositional factors—enrolment being guided by an instrumental value attached to pursuing a credential or job-related training, as well as the general belief that Canadian education is important.

Discussion

The immigration process often causes significant emotional and financial stress largely because of the disruption of resettlement to the family and the loss of employment security. To smooth the settlement process, many newcomers engage in education. Like other adult learners, immigrants adopt an instrumental approach to the pursuit of education and training (Schuetze & Slowey, 2000). Most enroll in career-related degree programs and job-related training. This demonstrates the strength of immigrants' motivation to build additional human capital and thus add value to their foreign credentials. Canadian immigration policy-makers, higher-education administrators, and adult educators need to be informed about the extent of immigrant demand and the level of their participation in post-secondary education and training, as well as unique characteristics of adult immigrant participants. The pathways to participation by adult immigrants are complex. However, the following individual and contextual factors are particularly relevant for an improved understanding of accessibility.

Immigrant Human Capital

The amount of human capital that immigrants possessed at arrival—especially the formal learning reflected in their level of education—affects not only immigrants' chances of gaining employment in the Canadian labour market, but also their decision to engage in education and training. It is useful to examine the actual participation rates by prior level of education. Table 3 shows that the participation rate is 40% for the entire sample but varies by level of education, from 16% for adult immigrants with high school or less, to 34% for those who had non-university education, to 47% for those with university degrees obtained prior to arrival.

If we view participation in learning as a lifelong activity, high levels of involvement in education are not unique to immigrants. In 2002, 52% of all Canadian university-educated workers were involved in formal job-related training, a rate that dropped to 38% for non-university graduates and 18% for those with secondary school graduation or less (Peters, 2004). Other studies (Bauder, 2005; Green & Green, 1999) also illustrate that prior level of education is a stable individual feature in predicting participation across a range of social groups.

Highest level of education at	Non-participants		Participants	
arrival to Canada	N	%	N	%
High school or below	670	84	130	16
Non-university credentials	760	66	400	34
University degrees	2160	53	1870	47
N=6000	3600	60	2400	40

Table 3

Counts and Participation Rates by Prior Level of Education

Immigrant Work Experience

A relevant insight about the reasons immigrants decide to pursue education is given by the relationship between participation status and acceptance of prior work experience. About 90% of the adult immigrants worked before arrival and evaluated their experience with Canadian employers in trying to have work experience accepted.

 Table 4

 Counts and Participation Rates by Acceptance of Prior Work Experience

Work experience accepted	Non-participants		Participants	
	N	%	N	%
Never tried to have it accepted	980	68	450	32
Tried/never succeeded	1030	49	1070	51
Tried/succeeded	1080	59	760	41
N=5370 *	3090	57	2280	43

^{*} Only those who worked before arrival

As shown in Table 4, those who never tried to have their prior work experience accepted or were never employed have the lowest rates of participation in education and training (32%). They either found jobs or, if less active in job searches, were not yet aware of employers' demands. Those who tried to have their work experience accepted and did not succeed were the most active in pursuing education (51%). Finally, 41% of those who successfully convinced employers about their prior work experience pursued education and training in Canada. This is an important result, because it demonstrates that even the immigrants who do not experience problems having prior work experience accepted still view Canadian education as a way to improve employment and advance their careers.

Immigrant Class

An interesting result that supports the relevance of work-related factors in immigrants' decisions to pursue education in Canada is the pronounced difference in participation between two economic immigrant groups: skilled-worker principal applicants and other economic immigrants. Most skilled workers were admitted to Canada based on their human capital profiles, but had no job arrangements at arrival. Meanwhile, provincial nominees or business investors had either assigned jobs or economic resources at arrival. As summarized in Table 5, participation rates are very different (i.e., 52% versus 13%), which suggests that employment opportunities (or lack of) influence to a large extent skilled workers' decisions to pursue further education.

 Table 5

 Counts and Participation Rates by Immigration Class

Immigration class	Non-participants		Participants	
	N	%	N	%
Skilled worker — PA	1280	48	1380	52
Skilled worker — SP/DEP	1090	63	630	37
Other economic group	270	87	40	13
Family	700	74	250	26
Other immigrants (refugees)	260	72	100	28
N=6000	3600	60	2400	40

Region (Country) of Origin

It is informative to present the participation rates by region of last permanent residence in order to illustrate the cultural diversity of the group of recent immigrant learners and to reflect on the complexity of factors that may impact their participation decisions. For instance, Bauder (2005) examines how cultural practices constrain immigrants' access to employment by analyzing the settlement process of immigrants from South Asia and the former Yugoslavia (Eastern Europe) in Vancouver. Those coming from South Asia are likely to be family-class immigrants who can mobilize their ethnic-based networks to find employment. They may also have a range of entrepreneurial opportunities that allow them to access the labour market rather than seek participation in education and training. Our data summarized in Table 6 also show the lowest participation rate of 31% for South Asian immigrants. Meanwhile, immigrants from the former Yugoslavia do not have family networks because they arrived as skilled workers or refugees. In their country of origin, they were also used to depending on professional networks to find jobs. It is more likely for Eastern Europeans to accept transitory occupations upon arrival while upgrading their credentials. This assumption is confirmed by our results. Some argue that Eastern European adult immigrants often benefit from extended family support for child-rearing, which is rooted in family values they bring from their country of origin (Robila, 2007) and could be essential if adult immigrants choose to take further education.

 Table 6

 Counts and Participation Rates by Source Region

Region of last permanent residence	Non-participants		Partici	pants
	N	%	N	%
North America, UK	200	62	130	38
W/Central Europe	270	67	140	33
Eastern Europe	250	51	240	49
Central/South America	170	56	140	44
Middle East	380	65	210	35
East/Southeast Asia	1260	58	900	42
South Asia	830	69	370	31
Africa	240	46	280	54
N=6000	3600	60	2400	40

Conclusion

The immigrant desire to engage in further education is shared by many native-born adults (see, for example, Peters, 2004; Rubenson, Desjardins, & Yoon, 2007). However, newcomers have unique characteristics and are differently positioned with respect to many of the established participation predictors. The main contribution of this paper is the elaboration of the Cross model to reflect these differences and allow a better understanding of the opportunities and constraints encountered by immigrants attempting to acquire host-country credentials. As shown in this paper, personal resources, such as foreign educational credentials, language proficiency, immigration class and country of origin, reported employment experiences in Canada, and preferences for different types of educational or training programs, are specific determinants of participation in further education by adult immigrants.

Many adult learning theories acknowledge the role of life transitions in adults' decisions to continue education and their motivation to learn (see, for example, Merriam, 2005). Immigration is a special life event that touches all aspects of one's existence. The disruption associated with differences in language, culture, work environment, and social network is likely to increase immigrants' motivation to engage in formal and informal education. This paper demonstrates that there is a substantial demand for education and training by recent adult immigrants. Within two years of arrival, 40% of adult immigrants are enrolled in education and training offered by a broad range of educational providers (e.g., about three-quarters of these participants actually enrolled in post-secondary institutions).

While participation is significant for the educated immigrants, more research is needed to explore the education and training options of the less educated immigrants who may not be able to meet entry requirements to post-secondary institutions.

Is the immigrant belief in the value of Canadian education justified? Studies are required that examine returns to educational investments made by immigrants who pursue Canadian credentials, and whether returns depend on other structural factors. For instance, research illustrates that immigrant university graduates who obtain Canadian credentials have improved labour market outcomes (Adamuti-Trache & Sweet, 2005; Anisef, Sweet, & Frempong, 2002), although differences by gender and visible minority status persist. In addition to analyses of university-educated immigrants and their employment in the high-skills knowledge economy, it would be important also to extend the scope of these investigations to include non-formal adult learning and workplace learning opportunities for immigrants (Yoshida & Smith, 2005; Zhang & Palameta, 2006).

Further research is also needed on the link between returns to further study and immigrants' choices of program level. For instance, some university-educated immigrants enroll in Canadian community college programs. This pattern of "recycling" to acquire job-relevant skills typically occurs after some contact with the Canadian labour market. It is an option often taken up by Canadian university graduates (Adamuti-Trache, 2008b). However, Walters (2003) found that Canadian university graduates who choose to recycle did not gain any particular economic advantage from added vocational training. Why recycling has different effects for the foreign and native-born university graduate needs to be further investigated.

In considering the relationship between credentials acquired by immigrants in Canada and the returns to such educational investments—specifically, earnings, job stability, or job continuity—it will be necessary to place these analyses in the context of a changing Canadian labour market. Recent assessments of the immigrant and nativeborn earnings gap and returns to education emphasize the complexity of this comparison. Additional considerations include the increased levels of educational attainment by nativeborn Canadians, the general decline in returns to education since the 1990s—that is, the question of underemployment—and the associated problem of skills-mismatch that affects productivity, especially across professional and managerial job categories (Dryburgh, 2005; Livingstone, 1999; Reitz, 2005; Riddell, 2003).

Adult immigrants' participation in education and training in Canada is an important part of the integration process and, almost upon arrival, many immigrants seem to be aware of the education and training opportunities offered by post-secondary institutions and other providers. Accessing these programs nevertheless poses challenges. Early immigrant participation in the Canadian post-secondary system would be facilitated if educational institutions were more aware that this student population has particular instructional needs and program expectations (Grabke & Anisef, 2008). This would involve greater institutional recognition of the diversity of the adult immigrant population in terms of education levels, language abilities, occupational profiles, and personal life circumstances that shape their unique motivations and actions. The response of adult educators is critical to the successful participation of immigrant learners. Lack of cultural awareness may raise communication barriers in the classroom. Lack of awareness of the complex issues that

affect immigrant learners during the transition into the host society may diminish learners' chances to reach their educational goals. As noted by Merriam (2005) "since the majority of adult students are most likely in transition, the role of the educator can range from one of meeting their immediate needs, to promoting developmental change by challenging learners to think beyond, or perhaps outside, their current frame of reference" (p. 12). A successful integration of immigrant learners on campuses could smooth the progress of their integration in the labour force and community.

References

- Adamuti-Trache, M. (2008a, April). *First four years in Canada: Work and post-secondary education pathways of highly-skilled immigrants.* Paper presented at the 10th National Metropolis Conference, Halifax, NS.
- Adamuti-Trache, M. (2008b). Further education pathways of Canadian university graduates. *Journal of Adult and Continuing Education*, 14(2), 147–167.
- Adamuti-Trache, M., & Sweet, R. (2005). Exploring the relationship between educational credentials and the earnings of immigrants. *Canadian Studies in Population*, *32*(2), 177–201.
- Adamuti-Trache, M., & Sweet, R. (2007, March). Adult Immigrants' Participation in Postsecondary Education. Paper presented at the 9th National Metropolis Conference, Toronto, ON.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Anisef, P., Sweet, R., & Frempong, G. (2002). *Labour market outcomes of immigrant and racial minority university graduates in Canada*. Toronto: Centre of Excellence for Research on Immigration and Settlement (CERIS) Working Paper Series.
- Aslanian, C., & Brickell, H. (1980). *Americans in transition: Life changes as reasons for adult learning*. New York: College Entrance Examination Board.
- Aydemir, A., & Skuterud, M. (2004). *Explaining the deterioration entry earnings of Canada's immigrant cohorts: 1966–2000* (No. 11F0019MIE). Ottawa: Statistics Canada, Family and Labour Studies Division.
- Banerjee, R., & Verma, A. (2009). *Determinants and effects of post-migration education among new immigrants in Canada* (Canadian Labour Market and Skills Researcher Network, Working Paper No. 11). Retrieved February 15, 2009, from http://www.clsrn.econ.ubc.ca/workingpapers/CLSRN%20Working%20Paper%20no.%2011%20-%20Banerjee%20&%20Verma.pdf
- Bauder, H. (2005). Habitus, rules of the labour market and employment strategies of immigrants in Vancouver, Canada. *Social & Cultural Geography*, *6*(1), 81–97.
- Betcherman, G., Leckie, N., & McMullen, C. (2000). Learning in the workplace: Training patterns and training activities. In K. Rubenson & H. Schuetze (Eds.), *Transition to the knowledge society* (pp. 283–303). Vancouver: Institute for European Studies, University of British Columbia.
- Bratsberg, B., & Ragan, J. F. Jr. (2002). The impact of host-country schooling on earnings: A study of male immigrants in the United States. *The Journal of Human Resources*, *37*(1), 63–105.

- Canadian Council on Learning. (2006). *Canadian post-secondary education: A positive record, an uncertain future*. Retrieved December 1, 2008, from http://www.ccl-cca.ca/NR/rdonlyres/BD46F091-D856-4EEB-B361-D83780BFE78C/0/PSEReport2006EN.pdf
- Chiswick, B. R., & Miller, P. W. (1994). The determinants of post-immigration investments in education. *Economics of Education Review*, *13*(2), 163–177.
- Cross, K. P. (1981). *Adults as learners: Increasing participation and facilitating learning*. San Francisco: Jossey-Bass.
- Dryburgh, H. (2005). Social structures and the occupational composition of skilled worker immigrants to Canada. *Canadian Studies in Population*, *32*(1), 97–130.
- Duleep, H. O., & Regets, M. C. (1999). Immigrants and human-capital investment. *The American Economic Review*, 89(2), 186–191.
- Duvander, A. E. (2001). Do country-specific skills lead to improved labor market positions? *Work and Occupations*, 28(2), 210–233.
- Ferrer, A., & Riddell, C. (2008). Education, credentials and immigrant earnings. *Canadian Journal of Economics*, 41(1), 186-216.
- Gilmore, J., & Le Petit, C. (2008). *The Canadian immigrant labour market in 2007: Analysis by region of postsecondary education.* Ottawa: Statistics Canada.
- Grabke, S., & Anisef, P. (2008, June). *Adult immigrant student experiences in Ontario post-secondary institutions: Issues and barriers to success.* Paper presented at the 43rd annual meeting of the Canadian Sociological Association at the 2008 Congress of the Humanities and Social Sciences, University of British Columbia, Vancouver.
- Green, A. G., & Green, D. A. (1999). The economic goals of Canada's immigration policy. *Canadian Public Policy*, *25*, 425–451.
- Hashmi-Khan, A. (1997). Post-migration investment in education by immigrants in the United States. *Quarterly Review of Economics and Finance*, *37*, 285–313.
- Hawthorne, L. (2007). Foreign credential recognition and assessment: An introduction. *Canadian Issues/Thèmes canadiens, Spring 2007*. Retrieved January 27, 2008, from http://canada.metropolis.net/pdfs/Hawthorne intro en.pdf
- Hum, D., & Simpson, W. (2003). Job-related training activity by immigrants to Canada. *Canadian Public Policy*, *29*(4), 469–490.
- Kasworm, C. (2001). K. Patricia Cross. In P. Jarvis (Ed.), *Twentieth century thinkers in adult and continuing education* (2nd ed., pp.180-192). London: Kogan Page.
- Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge, NY: Cambridge University Press.
- Livingstone, D. (1999). The education-jobs mismatch. Toronto: Garamond Press.
- Mata, F. (2008). Exploring linkages between the country of post-secondary education completion and labour market activity of immigrants in Canada (Working Paper Series No. 08-09), Vancouver: Metropolis British Columbia.
- Merriam, S. B. (2005). How adult life transitions foster learning and development. *New Directions for Adult and Continuing Education*, 108, 3–13.
- Peters, V. (2004). Working and training: First results of the 2003 adult education and training survey (Culture, Tourism and the Centre for Education Statistics Research Papers Series, Statistics Canada No. 81-595-MIE20040015). Ottawa: Statistics Canada.

- Reitz, J. G. (2001). Immigrant skill utilization in the Canadian labour market: Implications of human capital research. *Journal of International Migration and Integration*, 2(3), 347–378.
- Reitz, J. G. (2005). Tapping immigrants' skills. New directions for Canadian policy in the knowledge economy. *IRPP (Immigration and Refugee Policy) Choices, 11*(1), 2–18.
- Reitz, J. G. (2007). Immigrant employment success in Canada, part I: Individual and contextual causes. *Journal of International Migration and Integration*, 8, 11–36.
- Riddell, C. (2003). Panel comments. In C. Beach, A. Green, & J. Reitz (Eds.), Canadian immigration policy for the 21st century (pp. 621–632). Montreal: McGill-Queen's University Press.
- Robila, M. (2007). Eastern European immigrants in the United States: A sociodemographic profile. *The Social Science Journal*, 44(1), 113–125.
- Rubenson, K. (2001). *Measuring motivation and barriers in the AETS A critical review* (Report No. R-01-9-2E). Ottawa: Applied Research Branch, Human Resources Development Canada.
- Rubenson, K., Desjardins, R., & Yoon, E-S. (2007). *Adult learning in Canada: A comparative perspective* (No. 89-552-MIE- No.17). Ottawa: Culture, Tourism and the Centre for Education Statistics Division.
- Rubenson, K., & Schuetze, H. (2000). *Transition to the knowledge society.* Vancouver: Institute for European Studies, University of British Columbia.
- Schuetze, H. G. (2005). Financing life-long learning: The potential and actual role of individual learning accounts. In R. Sweet & P. Anisef (Eds.), *Preparing for post-secondary education* (pp. 126–148). Montreal: McGill-Queen's University Press.
- Schuetze, H. G., & Slowey, M. (Eds.). (2000). *Higher education and lifelong learners: International perspectives on change*. London and New York: RoutledgeFalmer.
- Schultz, T. W. (1961). Investment in human capital. *The American Economic Review,* 51(1), 1–17.
- Shannon, M., & Kidd, M. P. (2001). Projecting the trend in the Canadian gender wage gap 2001–2031: Will an increase in female education acquisition and commitment be enough? *Canadian Public Policy*, 27(4), 447–467.
- Slade, B., Luo, Y., & Schugurensky, D. (2005, May). Seeking 'Canadian experience': The informal learning of new immigrants as volunteer workers. *Online Proceedings of the CASAE National Conference*. Retrieved July 10, 2009, from http://www.oise.utoronto.ca/CASAE/cnf2005/2005onlineProceedings/CAS2005Pro-Slade2-Luo-Schug.pdf
- Statistics Canada. (2003a). *Longitudinal survey of immigrant to Canada: Process, progress and prospects* (No. 89-611-XIE). Ottawa: Statistics Canada, Minister of Industry.
- Statistics Canada. (2003b). Longitudinal survey of immigrant to Canada: Progress and challenges of the new immigrants in the workforce (No. 89-615-XIE). Ottawa: Statistics Canada, Minister of Industry.
- Statistics Canada. (2005). *Longitudinal survey of immigrant to Canada: A portrait of early settlement experiences* (No. 89-614-XIE). Ottawa: Statistics Canada, Minister of Industry.

- Statistics Canada. (2008). *The Canadian immigrant labour market in 2007: An analysis by region of post-secondary education* (No. 71-606-X). Ottawa: Statistics Canada, Minister of Industry.
- Sweet, R. (2008, June). *Institutional responsiveness to adult immigrant students*. Paper presented at the International Forum on Leveraging Learning for Regional Development, Lakehead University, Thunder Bay, ON.
- Sweetman, A., & McBride, S. (2004). *Postsecondary field of study and the Canadian labour market outcomes of immigrants and non-immigrants*. Ottawa: Human Resources and Skills Development Canada.
- Teelucksingh, C., & Galabuzi, G. E. (2005). Impact of race and immigrant status on employment opportunities and outcomes in the Canadian labour market. *Policy Matters*, 22, 1–13.
- Van Tubergen, F., & De Werfhorst, H. (2007). Postimmigration investments in education: A study of immigrants in the Netherlands. *Demography*, 44(4), 883–898.
- Walters, D. (2003). Recycling: The economic implications of obtaining additional postsecondary credentials at lower or equivalent levels. *Canadian Review of Sociology and Anthropology*, 40(4), 463–480.
- Yoshida, Y., & Smith, M. (2005). Training and the earnings of immigrant males: Evidence from the Canadian workplace and employee survey. *Social Science Quarterly*, 86(5), 1218–1241.
- Zhang, X., & Palameta, B. (2006). *Participation in adult schooling and its earnings impact in Canada* (11F0019MIE No. 276). Ottawa: Statistics Canada.