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Social and Economic Determinants of Continuing Education by Canadian University Graduates

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Key words: continuing education, knowledge economy, return to education

Abstract: A frequent reason for continuing education by adults, regardless of educational attainment, refers to the changing nature of work. Through secondary analysis of the National Graduate Survey data, the study reveals patterns of participation in education and training in relation to employment and life course circumstances of Canadian university graduates in early 2000s.

Background

Contemporary lifelong learning discourse emphasizes the key aim of this practice is “to help persons become responsive and responsible citizen learners and workers who are able to think, speak and act in life, learning and work situations” (Grace, 2004, p.385). Others argue that knowledge is growing at such a pace that the formal education gained during childhood and youth is not sufficient to meet the demands of today’s knowledge society. Young and old adults need to adopt “global perspectives on knowledge, communications, and careers” because “much of today’s knowledge, skills, careers and value system seems obsolescent at best” (King, 1999, p.110). Lifelong education is no longer an optional activity, but rather the solution for living in a global society (Brown, Green & Lauder, 2001; Rubenson, Desjardins & Yoon, 2007). A frequent reason for participating in continuing education is the changing nature of work. Lifelong learning in the new economy has emerged from workplace demands, economic globalization and rapid restructuring of jobs (Cruikshank, 2001). The recent 2003 Adult Education and Training Survey (AETS) collected data on all kinds of organized learning by Canadian adults (defined as persons aged 25 years and older who were employed at some point in 2002), the bulk of which would qualify as formal training (Peters, 2004). While one third of employed adults participated in formal job-related training, another one third engaged in informal training (self-directed learning) for the purpose of developing job skills.

Continuing education has become a common characteristic of the workforce in many developed countries. Canada is recognized among the industrialized countries with a well-developed system of education and training (OECD, 2007), following Sweden, Denmark, the United States, Finland, Switzerland and the United Kingdom (Table C5 1a, p.353-354). In 2002, a quarter of the 25-to-64 year-old workforce participated in non-formal job-related training. However, participation continues to be largely observed among those with higher level of education. Thus, 35% of those with tertiary (post-secondary) education were engaged in continuing studies, as compared to 20% and 6% of upper-secondary and less than upper secondary graduates, respectively. The opportunities for continuing education allow greater participation in post-secondary programs and courses, which in turn, result in a more educated populace. Overall, Canada is among those OECD countries with the highest level of education: in 2005, 23% of those aged 25 to 64 had a university education and 46% had completed post-secondary education (OECD, 2007, p.36). In 2002, the participation rate in formal job-related training was 52% for university-educated workers, compared to 38% and 18% for those with non-university education and secondary school education or less, respectively (Peters, 2004).

Canada also has a very active and highly selective immigration policy that brings every year to the country large numbers of skilled immigrants who have prior university education. For instance, 55% of the immigrants who arrived in 2001 had at least a bachelor's degree (Statistics Canada, 2005). Adult immigrants are very likely to participate in further education soon after arrival. Two-thirds of the newcomers surveyed in 2001 had plans to pursue education and training in Canada, an intention that was more evident among those with university degrees. Indeed, within two years after arriving to Canada, 40% of adult immigrants aged 25 to 49 participated in some formal education other than language training (Adamuti-Trache & Sweet, 2007) and the participation rate of university educated immigrants was as high as 47%. Clearly, continuing education is viewed as a normal means to improve one's quality of work and life.

In particular, pursuing further education is perceived as a strategy to enhance the returns to investment in university education, as demonstrated by research based on the National Graduate Surveys (NGS) (Finnie, 2002; Lin, Sweet, Anisef & Schuetze, 2000) as well as provincial surveys on graduates' outcomes (Adamuti-Trache, Hawkey, Schuetze, & Glickman, 2006). In addition, significant participation in post-secondary education by highly educated newcomers to Canada (Statistics Canada, 2005) suggests that various groups in the Canadian society employ continuing education (interchangeably called further education, continuing studies, adult education) as an economic strategy to gain employment and broaden job opportunities. Post-secondary institutions and other providers need to better understand learners' motivation to engage in further education and training while remaining active in the workforce in order to develop adequate instruction.

Methodology

Purpose of the Study

This paper determines the extent of participation in continuing education (CE) by holders of university degrees. Through secondary analysis of data from the 2002 National Graduates Survey (NGS) and the 2005 Follow-up of the Canadian post-secondary graduates in 2000, the study reveals patterns of participation in education and training in relation to employment, life course circumstances and dispositions to engage in further learning. The study addresses several specific questions:

- (1) What role do post-secondary institutions play in the provision of CE?
- (2) How is CE participation associated with individual, situational and dispositional factors?
- (3) Is there any change in labour market outcomes associated with CE participation?

Research Sample and Variables

The research sample consists of 9,140 respondents who represent over 75,000 Canadians who graduated from post-secondary institutions in 2000 and reported at least a bachelor's degree as their highest level of education. The sample includes only graduates age 25 to 64 at graduation who are more likely to follow non-traditional learner pathways. Only those who lived in Canada between 2000 and 2005 and were likely to enter or re-enter the workforce are selected. Table 1 shows the sample distribution by age, gender and level of university education. Although women represent 57% of the sample, they are mostly recipients of bachelor's degrees, the largest gender differences being evident for age groups 30-39 and 40-49. For both women and men, the age group 40-49 shows the highest proportions of graduates with education above bachelor's degrees

Table 1: Research sample by age, gender and highest level of education (%)								
<i>Highest level of education in 2000</i>	Age 25-29		Age 30-39		Age 40-49		Age 50+	
	<i>Male</i>	<i>Fem</i>	<i>Male</i>	<i>Fem</i>	<i>Male</i>	<i>Fem</i>	<i>Male</i>	<i>Fem</i>
Bachelor's or first professional degrees	69	69	48	60	42	53	53	59
Above bachelor's or graduate degrees	31	31	52	40	58	47	47	41
N	2040	2390	1250	1490	530	960	150	330

Outcome variables describe participation in at least one educational event within 5 years after graduation. These events are formal education programs 3 months or longer offered by public and private post-secondary institutions, and career-related courses that took at least 20 hours of participation and were offered by various providers (e.g., employer, post-secondary institutions). Enrolment in programs taken by 2002 or programs completed by 2005 are differentiated by institution (i.e., university and non-university), and for university participation by degree purpose (i.e., second degree and non-degree). Programs still underway in 2005 are not included. Data on career-related course training are reported for 2002 only, which indicates that CE participation mainly describes the first two years after graduation. Outcome variables are:

- continuing education (CE) that includes programs and career-related courses
 - o post-secondary continuing education (PSCE) that includes program studies
 - o training career-related courses (TR).

Following Cross' model of participation in education by adults (1981), several explanatory variables are used to characterize participant and non-participant profiles:

- individual factors (gender, age, level of education, field of study, immigrant status, academic ranking)
- situational factors (marital status, dependent children, employment, financial support for PSE through loans, earnings or family/awards/others that are likely non-repayable)
- dispositional factors (parental education as a measure of cultural capital, part-time and distance education instruction in the completed university degree).

This is an empirical study and descriptive statistics are used to show CE participation and employment gain patterns. To explore the relationship between PSCE choice and individual, situational and dispositional factors, a regression analysis is conducted.

Study Findings

Who Participates in Continuing Education?

Overall, 51% of university graduates participated in further education and training within 5 years after graduation, about 30% taking programs 3 months or longer and 28% taking career-related courses. Table 2 shows that women are less likely to enroll in courses, while respondents with higher level of education are less likely to embark in PS program studies. There is a clear decline in participation with age, and a greater participation by immigrants. Table 2 shows that the lack of a permanent job and dissatisfaction with income increase participation. However, participants may feel overqualified if there is limited job recognition of their further education/training.

Table 2: Participation in Continuing Education 2000-2005 (%)

		NP	CE	PSCE	UCE_SD	UCE_ND	NUCE	TR
Gender	Male	48	52	30	17	8	9	29
	Female	51	49	29	14	11	7	26
Age	25-29	46	54	31	17	9	8	29
	30-39	51	49	28	14	9	7	28
	40-49	52	48	29	16	12	7	24
	50+	60	40	25	10	9	6	23
Level	Bachelor/1 st prof deg	48	52	31	15	10	9	27
	Above bachelor's	51	49	27	15	8	6	28
Immigrant	No	51	49	28	15	9	6	27
	Yes	45	55	35	16	10	13	29
Job permanency*	No	46	54	37	21	13	7	27
	Yes	52	48	24	10	9	7	30
Satisfaction income*	No	49	51	32	13	12	11	30
	Yes	52	48	25	11	9	6	30
Overqualified*	No	52	48	23	11	8	6	30
	Yes	49	51	32	14	11	10	29

* Includes only respondents who are employed; NP= Non-participant; CE = Continuing education and training; PSCE = Post-secondary programs taken by 2002 or completed by 2005; SD = Second degree university program; ND = Non-degree university program; NUCE = Non-university continuing education program; TR=job-related training courses 20+ hrs.

Modeling Participation in Further Post-Secondary Education

A logistic regression to predict the likelihood of participation in post-secondary programs was conducted. The full model explains 14% of the variance in the outcome which doubles the 7% explained by individual factors alone. For instance, groups that are less likely to enroll in PSE programs are women, respondents age 50 or above, holders of graduate degrees or married people. Immigrants are 40% more likely to participate compared to Canadian-born individuals. The field of study of the completed 2000 program appears to be relevant -- compared to those who obtained a degree in the field of education, graduates in humanities, arts, social sciences and physical sciences fields are 2 to 3 times more likely to engage in PS programs. Academic ranking matters such that those who graduated below the top half are 30% less likely to take more PS programs compared to the others. Employment status and financial support for PS education are good predictors of participation – the least likely participants are those employed full-time who supported their education by personal earnings and savings. Familiarity with part-time study and distance instruction is likely to increase the likelihood of further education. A significant result is that graduates coming from families in which at least one parent had a university education are 30% more likely to continue their studies beyond the first university degree completed in year 2000.

Change in Labor Market Outcomes

One can expect that pursuing a second degree at the same or higher level may delay the integration in the labour force, which is evident for those involved in program study. In order to finish their studies, they likely keep temporary or lower paid jobs, often less related to their education. Those who took both programs and job-related courses were in a slightly better position, possibly because they already finished program studies. In 2002, the non-participant group was better situated than the two program-taking groups, and continued to show wage gains and increasing job permanency over time. However, the best labour market outcomes are noted for participants in career-related courses taken in the first two years after graduation. Data do not

contain information on course participation between 2002-2005, but this group that too early job-related training, largely supported by employers, shows continuous economic growth.

Table 3: Changes in job characteristics and work satisfaction (2002→2005)				
	Non-participant	Only courses	Program & courses	Only programs
Employed	90→ 91	95→ 96	86→ 92	76→ 88
Permanent job*	85→ 91	88→ 94	76→ 84	76→ 82
Job closely related to education*	66→ 67	66→ 70	44→ 60	57→ 60
Satisfied w income*	78→ 81	80→ 87	69→ 83	75→ 76
Satisfied w job*	91→ 93	93→ 96	90→ 91	88→ 92
Median income (\$)*	42k→52k	47k→58k	42k→55k	39k→46k

* Includes only respondents who are employed

Conclusion

This purpose of the study was (1) to illustrate the role of post-secondary system in the further education and training of the highest educated labor force; (2) to explore the determinants and correlates of participation in program study, and; (3) to estimate change in labour market outcomes for participants and non-participants. Respondents were enrolled in either programs and/or career-related courses within 5 years after graduation. About 70% of PSE program takers indicated career and job related motives. More than half of those who utilized the PS system enrolled in university programs to acquire higher level or second degrees, while others took a variety of university and college programs to acquire new skills. Of those labeled as non-participants, one third took actually shorter courses not career-related. Findings demonstrate that further education is an integral component of adult life course and the post-secondary system is largely utilized. However, most participants re-enter the system to pursue education/training for career-related reasons, being dissatisfied with income and lack of job security.

An issue of concern is that within 2 years after graduation, only about 60% of all graduates report a close relation between their current job and the completed university education. Since 90% of graduates are satisfied with their job, it appears they take further education in order to keep jobs and/or perform better. Still 40% find that their job does not match their education which roughly corresponds to the 50% reported by Livingstone (1999) as underemployed or underqualified and for whom educational attainment did not match job entry or job tasks requirements. As noted by Livingstone “the knowledge society dwarfs the knowledge economy. Lifelong learning is alive and well. It is the relative withering of good jobs with decent pay that is the central problem creating the education-jobs gap” (p.164). Further research should explore whether this is a sign of mismatch between workplace demands and graduates’ skills or between the occupational and academic program structures. This skill mismatch reinforces the need to create effective environments for adult education and training, and stimulate partnership between PS institutions and the corporate world in order to maximize the return to education. Finally, the study findings demonstrate that social structures impact participation in education and training. Equitable access to further education and its effect on careers and jobs remain a challenge for individuals, institutions and society in the quest to build a diverse and well-qualified workforce.

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