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Immigrant Parents' Investments in Their Children's Post-Secondary Education

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ABSTRACT

This paper examines relationships between the resources available to immigrant families and the amount parents are willing and able to save for their children's post-secondary education (PSE). We use data from Statistics Canada's 2002 Survey of Approaches to Educational Planning to compare immigrant and native-born PSE saving. The results indicate that income and asset wealth constrain PSE savings in some immigrant families. However, immigrants share with non-immigrants a set of parenting beliefs and practices that encourage both groups to invest in their children's educational futures.

RÉSUMÉ

Cet article examine les relations entre les ressources disponibles aux familles immigrantes et le montant que les parents veulent et peuvent épargner pour les études postsecondaires (EPS) de leurs enfants. Afin de comparer les épargnes pour les EPS des immigrants et des non-immigrants, nous avons eu recours aux données de l'Enquête sur les approches en matière de planification des études, effectuée en 2002 par Statistique Canada. Les résultats révèlent que l'état de l'actif et des revenus freine l'épargne pour les EPS chez certaines familles immigrantes. Toutefois, les immigrants et non-immigrants partagent un ensemble de croyances et de pratiques parentales communes qui encouragent les deux différents groupes à investir dans l'avenir éducationnel de leurs enfants.

INTRODUCTION

Immigrants to Canada typically value higher education and most assume their children will attend a college or university (Krahn & Taylor, 2005; Looker & Thiessen, 2004). While there is an established body of research on immigrants' post-secondary education (PSE) aspirations, there is less understanding of how immigrant parents plan and prepare for this.

Planning for PSE requires the systematic investment of a range of resources. Adequate financial support is, of course, essential in a time of rising tuition fees and much of this financial responsibility falls to families. There is evidence of declining earnings and higher levels of poverty among immigrants, especially among recent arrivals (Fleury, 2007; Picot, Hou, & Coulombe, 2007). This suggests immigrant families are experiencing significant modifications to family spending priorities and constraints on the capacity to save for their children's future education. However, many immigrant parents arrive in Canada with advanced levels of education that have the potential to buffer the negative effects of reduced income (deBroucker, 2005). Family income and parents' education are basic markers of socio-economic status. Both influence parents' views on the importance of post-secondary education. They also shape parental willingness and ability to commit the needed financial resources to their children's PSE.

Immigrant and non-immigrant parents make additional investments of emotional, cultural, and social capital to encourage and support children's academic performance (Sweet & Anisef, 2005). These are expressed in various parenting behaviours such as involvement in children's learning, the establishment of social connections with community and school personnel, and the nurturing of a belief in PSE as an achievable goal. Together, these practices constitute a broad investment strategy that includes and complements the financial contributions parents make toward their children's post-secondary education (Frenette, 2007; Lefebvre, 2004). The possession and activation of non-material forms of family capital will sustain PSE ambitions and facilitate children's preparation for college or university. They will not, however, fully resolve a shortfall in the family's economic resources without careful planning begun early in the child's school career and sustained over the K-12 period.

This study compares the antecedents and correlates of PSE savings in immigrant and non-immigrant families to better understand how these groups mobilize family resources. In our analysis we pay particular attention to the configuration of income and education among families as predictors of parents' PSE-savings behaviour. We also consider the specific means by which immigrant and non-immigrant parents activate resources that comprise various amounts and kinds of capital – not only financial but also cultural and social forms. Recognizing the contribution children make to their own educational futures, we include in our analysis various academic achievement and engagement indicators that are likely to reinforce parents' commitment of family resources.

BACKGROUND

Educational Planning

Research on educational planning in Canadian families is limited and that on immigrant families even more so (Sweet & Anisef, 2005). Recent reviews of the literature

do suggest that PSE planning activities are embedded in a more general approach to child-rearing broadly termed "intensive parenting" (Cote & Allahar, 2007; Hays, 1996; Lareau 2003). Intensive parenting requires families to accept responsibility for ensuring the educational success of their children. Many parents have accepted the role of educational manager, characterized by aspirations to university or college, high expectations for academic performance, and, increasingly, greater involvement in their children's learning (Davies, 2005; Hoover-Dempsey & Sandler, 1997). Motivated by what is perceived to be a competitive PSE system, parents develop investment strategies designed to prepare the child for the transition from school to PSE. Educational savings plans are part of this preparation but they go hand-in-hand with investments that enhance the child's academic and social engagement with school. Although parent-teacher contacts are a part of the intensive parenting approach, most investments are made in home and community activities. These include homework monitoring and help, and support for social, cultural, and sport involvement.

Underlying immigrant parents' PSE planning is an approach to child-rearing that has been characterized as immigrant "resilience" or "optimism" (Chao, 2000; Kao & Tienda, 1995). The process of emigration is stressful and involves loss of various kinds – friends, jobs, and community affiliations are left behind in the move to Canada. Many, if not most, immigrants view the sacrifice of material and emotional comfort as being justified by their children's success in school, which they view as essential to eventual integration into the Canadian labour market and society. They thus are willing to make significant investments of family resources in promoting their children's academic achievement (Fuligni & Fuligni, 2007; Louie, 2001). How immigrant resilience is enacted in relation to the schooling of children has not been extensively studied in this country. However, recent comparative studies have observed similarities (and some differences) in immigrant and native-born approaches to educational planning. For example, both groups share a basic belief in the value of education, seen most obviously in rising PSE aspiration levels (Davies, 2005; Sweet, 2005). The goal of a PSE credential is accompanied by an emphasis on homework monitoring and the management of extra-curricular activities throughout the K-12 period (Dinovitzer, Hagan, & Parker, 2003; Krahn & Taylor, 2005; Marks, 2005). Responding to the ethnic diversity found among recent immigrants to Canada, Kwak (2003) describes how parent-child relations can vary along cultural lines. Immigrant adolescents' sense of family obligation and compliance with parental wishes is often expressed in high levels of commitment and attention to school tasks such as homework. In this respect, immigrant youth differ from many of their native-born peers. There are however, significant variations in academic engagement across ethnic groups (Dyson, 2001; Li, 2003; McAndrew et al, 2009).

Whether immigrant or non-immigrant, parents' investments in their children's education are extensive. Significant commitments of time and energy are made in the K-12 years to prepare the child for university or college. At the same time, parents are required to finance their children's PSE futures and many begin doing so through educational savings plans.

PSE Savings

Parents make significant monetary investments in their children's education in various ways and often do so over an extended period of time. In the K-12 years, they buy school supplies, pay fees for field trips, hire tutors when needed, and somewhat over half of them attempt to save for their children's university or college expenses (Junor & Usher, 2004; Ouellette, 2006).

Research on PSE savings has focussed on two areas – structural factors and parental PSE aspirations. Most such studies have examined the relationship between PSE savings and family income or home ownership. Most find that low-income families are at a significant disadvantage (EKOS, 2006; Statistics Canada, 2001). Finnie, Laporte, and Lascelles (2004) identify various sources of financial "credit constraint" encountered by low-income families, especially when the children are young and the parents not yet established in the labour market. Levels of wealth are also important indicators of the capacity of families to save for their children's PSE. Among immigrants, wealth has been examined in relation to savings available upon landing. For the most part, immigrants' initial savings varies by entry class (Statistics Canada, 2005). Home-ownership is another indicator of wealth. Gymiah, Walters, and Phythian (2005) found that home-ownership in Toronto varied by ethnicity and immigrant status. While financial circumstance determines PSE savings to a considerable degree, the educational goals parents have for their children are also important predictors of savings. How much they save and when they begin saving depends, in part, on whether their PSE goal is university or the considerably less-expensive college pathway (COMPAS, 2005).

With the publication of the 1999 and 2002 Survey of Approaches to Educational Planning (SAEP) surveys, researchers have used the more detailed information on family and on parents' attitudes and behaviours contained in these data to examine the basis for parents' PSE savings patterns.[1] The research conducted with the SAEP data can be distinguished as "descriptive" or "multivariate." The former outlines the basic relationships among social structures, family situations and processes, and PSE savings. The latter constructs an initial explanatory picture of the effects on PSE savings of selected family, community, and school factors.

SAEP Descriptive Studies

Anisef, Sweet, and Ng (2004) used the 1999 SAEP data in comparing savings amounts of parents who expected their children would attend either a community college or a university. The savings of these parent groups differed across socio-economic status dimensions of family income and parental education. Family income showed marked differences in savings between the highest and lowest income categories. Parental education showed a similar pattern – parents with a university degree saved considerably more than those with a high school education. Included in this study was a profile of ethnic differences, based on mother's reported ethnic heritage, including those who identified as Canadian. The amount saved by ethnic parents typically exceeded the PSE savings average of Canadian parents.

Generally similar findings with regard to PSE aspirations and savings were found by Shipley, Ouellette, and Cartwright (2003), who used the more recent 2002 SAEP data set. These authors detail the various antecedents and correlates of parental sav-

ings status and savings amounts. As expected, savers were more numerous and savings amounts greatest among parents with the highest incomes and levels of education. An important addition to previous descriptive studies was the inclusion of information on children. Savings were associated with the child's age and his or her academic achievement. Parents also tied their savings intentions and behaviours to whether or not the child was perceived to be making an effort in his or her studies – i.e. seen to be "working to potential."

SAEP Explanatory Studies

Other analyses of the SAEP data have employed multivariate techniques to better explain differences in the savings status and savings amounts of parents. White, Marshall, and Wood (2005) used the 1999 SAEP data to examine the relative effects on savings status of selected family structures and parents' stated expectations for the child's school performance. Savings status in this study was defined as those currently saving. Family income and parents' level of education remained significant in the final equation that predicted savings status. Family organization (one- or two-parent family) was also strongly related to savings behaviour. Single-parent families saved significantly less money. However, the coefficient for parents' expectations remained significant even after controlling for the effect of the family structure variable.

Thiessen and Looker (2005) also used the 1999 SAEP data to study how parents with more than one child saved for their PSE. Consistent with US research, they found that savings for any individual child was lower depending on family size. However, most parents adhered to a principle of equity in allocating PSE savings among siblings. Thiessen and Looker found several factors affected decisions about the timing and amount of money assigned to a particular child. Among the more salient reasons were the age of the child and how well they were doing in school. Those children who showed academic promise in high school were allocated more money than their younger siblings although they too would be supported as they matured – and if they proved academically able.

Using the SAEP 2002 data, Lefebvre (2004) estimated the amount saved by parents based on structural factors – including income and parents' educational attainment; children's achievement; and, additionally, parents' PSE aspirations and their involvement and interaction with children. Their awareness of government financial aid programs was also examined. In assessing the relationship between PSE saving and family wealth, Lefebvre found that both income and the possession of a mortgage-free house were significant predictors, controlling for the other variables (average values). Parental educational level also remained significant in the full model. Of particular interest to the present study was the significant association between savings and parent involvement variables. Parents who were familiar with the government-sponsored Canadian Education Savings Grant (CESG) program saved considerably more than those who were not aware. Children's school achievement was also a significant factor in influencing the amount their parents save. Lefebvre reported that estimated savings for children with A grades was 20% higher than those with B or C grades.

Immigrant Savings Studies

To our knowledge, only two Canadian studies included an immigrant status variable in the prediction of parents' PSE savings for their children. Milligan (2005) used the Survey of Consumer Finance to predict RESP savings from a model containing basic social structural and family composition variables. For immigrants – defined as those with at least one foreign-born parent – the proportion of RESP participants was higher than the native-born although the average amounts saved were smaller. Similar to Lefebvre's (2004) results, Milligan found that family income and parental education predicted PSE savings. Wealth (income other than earnings) was also a significant predictor of savings. Milligan speculated that because neither a deficit of financial information nor a lack of investment sophistication (RESP participation) was a barrier, unmeasured immigrant aspirations offer a more likely explanation of PSE savings.

Bonikowska (2007) examined the trade-off between parents' pre-immigration level of education and their willingness to save for their children's education. Using the 2002 Ethnic Diversity Survey, she found that highly-educated immigrant parents were more inclined to invest in their own education and training, leaving less money available for their children's future education. In contrast, immigrant parents who possessed few educational credentials themselves held PSE aspirations for their children and worked to save for their educational futures. The fact these parents were poorly educated also meant their incomes were low. This pattern of low-income and high savings rates reinforces the immigrant optimism/resilience thesis. Certainly, it suggests income may not be absolutely critical to savings among immigrant parents while, at the same time, underscoring the importance of PSE aspirations as an essential motivation for investing in their children's post-secondary education.

SAMPLE AND VARIABLES

The data for this analysis are drawn from the public use file for the 2002 Survey of Approaches to Educational Planning (SAEP). The target population for the SAEP is children between the ages of 0 and 18 living in all 10 provinces in Canada. Those living in Canada's territories and on First Nations reserves are excluded from the survey, as are full-time members of the armed forces and residents of institutions. The SAEP data were collected from the "person most knowledgeable" about the child, which in most instances was the parent. The response rate for the survey was 71.5%. This involved 10,788 respondents who provided personal, family, school, and community information that related to a single child selected from their household. We excluded children who were never expected to attend school as a result of some physical, mental, or emotional disability, who were under 5 years of age, or who were not enrolled in grades K (kindergarten) through 12 in the previous school year. This left a research sample of 5,580 respondents.

Descriptive profiles of the SAEP 2002 sample are shown in the Appendix. These distinguish non-immigrant families and immigrant families: the latter are further differentiated by whether one or both parents were foreign-born. The profiles are organized into three sets of variables: social structure and situational factors; parental beliefs and behaviours; and children's commitment. In predicting PSE savings, our primary interest is with the indicators of family SES, selected intensive parenting prac-

tices, and, finally, the academic engagement and achievement of the child. The specific variables included in the analysis are described below.

The savings variable is the total amount of savings accumulated by parents for their child's post-secondary education, including income and interest from any type of savings or financial investment plan.

Immigrant status is frequently undifferentiated in survey research, especially where comparisons are made with the native-born reference groups (Krahn & Taylor, 2005; Lefebvre, 2004; Milligan, 2005). Such binary comparisons often result because sample sizes do not allow further distinctions to be made or because surveys lack the additional cultural, social, or situational information needed to characterize immigrant sub-groups. The design variable in this study (immigrant status) distinguishes among respondents who have two foreign-born parents, one foreign-born parent, or two native-born parents. We assume (host-country) cultural familiarity is greater in immigrant families with one foreign-born parent than in those with two foreign-born parents. These "mixed" families, then, are better able to provide or deploy capital that facilitates their children's school adjustment. Such an assumption seems reasonable and of some importance given the culturally diverse nature of Canada's immigrant population (Bonikowska, 2007; Rodriguez-Garcia, 2007).

Many of the other explanatory variables used in this analysis are similar to those employed in previous studies of educational planning that used SAEP data (see Lefebvre, 2004; Shipley et al., 2003). Socio-demographic characteristics include sex, region of residence, number of siblings, and age. Two variables are employed to represent family structure and organization. The first distinguishes between children living in dual- or single-parent families, and the second contrasts households in which the mother works or is a home-maker. Since language is a key issue in studies involving immigrants, we also include a variable which identifies whether the respondents speak one of the official languages (English or French) at home.

Variables relating to education, family income, and housing tenure are employed as indicators of family socioeconomic status. The parental education variable distinguishes between respondents who have at least one parent with a university degree from those with no PSE experience or with some other type of PSE credential. The family income variable is derived by Statistics Canada and is based on the income from all sources during the last 12 months before taxes and deductions. Income levels of immigrant families with 2 foreign-born parents did not differ from those of the native-born. This is not entirely consistent with the literature on declining earnings among well-educated immigrants and reports of poverty experienced by newcomers. However, much of this research on immigrant poverty has concentrated on "very recent" arrivals (less than 5 years) and thus employed a more restricted sample than the SAEP (Picot et al., 2007). The housing-tenure variable distinguishes among families who own their home and are mortgage free, those who own their own home but have a mortgage, and those who rent.

Several variables assumed to motivate or complement parental PSE savings investments were selected. These included parents' knowledge of available savings opportunities and expectations regarding assistance with post-secondary financial planning. The SAEP includes questions regarding parents' awareness of savings incentive programs (i.e., CESG), their expectations of receiving grants or bursaries based on

financial need, and whether someone else has a savings plan for their child's post-secondary education.

The post-secondary aspirations parents hold for their children were included. In the SAEP, respondents were asked how far they hoped their child would go in school. The responses to this question have been grouped into three categories: high school; other (non-university) post-secondary; and university. We differentiate PSE aspirations by level because the literature indicates parents will save more if they anticipate their child will attend university rather than college. Some parents selected "high school" as an educational goal but nevertheless saved for their child's PSE. We assume these parents will save less than those who have a particular PSE pathway in mind.

Parents' direct (monetary) investments in their child's academic performance were indicated by whether or not they engaged the services of a tutor. Parents' motivations for hiring a tutor undoubtedly vary. Recent immigrants may have sought language training while parents in all groups may have sought remedial help for children who were struggling academically. Still other parents of competent students may have felt tutoring would add value to classroom instruction (Davies, 2004).

Two indicator variables were constructed to represent different dimensions of parent-child interactions. The first composite variable assesses parent-child relationship relating to the completion of homework and is derived from four questions: the number of times per week parents helped their child with homework; how frequently they ensured their child would not be distracted when doing homework; how much time was available for their child's leisure activities; and the extent to which homework was a source of parent-child stress. The second indicator variable is based on three questions that directly measure parent-child interactions: how often they praised their child's academic efforts; the amount of time parents spent interacting with their child; and the amount of time parents talked with the child about school activities.

The variable indicating children's school achievement or performance is based on parents' knowledge of report card information. The savings behaviour of parents is likely influenced by whether or not they believe their child has the potential to successfully pursue a post-secondary education credential (Thiessen & Looker, 2005).

A composite variable was constructed consisting of questions that reflected the child's social engagement: the amount of time engaged in extra-curricular school activities; in non-school learning activities; and in community-based activities such as sports, scouts, and music lessons. Values for these variables were summed to indicate the extent or volume of social activity both in and out of school.

ANALYSIS AND RESULTS

PSE Savings Differences

Table 1 shows the pattern of savings across the different groups. Consistent with previous research, immigrant parents saved more for their children's PSE than did non-immigrant parents. Immigrant families in which one parent was foreign-born saved more than those in which both were foreign-born. Considerable variation in savings is noted for all groups.

Table 1.
PSE Savings by Immigrant Status (N= 5580)

PSE Savings	Immigrant Status of Parents *		
	Both parents Immigrants	One Parent Immigrant	Native Born
Mean	$5,627.70	$6,605.14	$5,064.20
(Standard eviation)	($10,137.20)	($11,390.44)	($9,577.51)

* $p < .01$

Regression Analysis

Our primary concern in this study was to assess the relative effects on PSE savings of family socio-economic status, parental involvement, and children's achievement. We estimated savings in a regression model that included not only the variables of substantive interest but also factors that, in previous research, provided important context (Lefebvre, 2004). Since the distribution of savings for the sample is positively skewed and non-negative, we employed a gamma distribution in fitting a generalized linear model to estimate respondents' total accumulated savings.[2] The results are reported in Table 2. The variables discussed are those that remained significant predictors of savings when all other variables in the equation were held constant (at average values).

Socio-economic Factors

Given that families with immigrant parents generally save more for their child's post-secondary education than non-immigrant families, an essential question is whether saving in immigrant families depends on parental education – controlling for income, home ownership, and other variables in the model. Specifically, we assess whether the relationship between the immigrant status of parents and their savings is influenced by having at least one parent with a university education. The results suggest that having such a parent has a positive impact on savings only for children raised in non-immigrant families. A child with non-immigrant parents will receive $1,200 more in post-secondary savings if at least one parent has a post-secondary education. However, the savings of children raised by two foreign-born parents does not depend on whether one parent has a university education; and children raised in families with one foreign-born parent actually receive less in savings if at least one parent has a university education. Thus, having at least one university-educated parent – and the access to cultural capital presumed associated with this credential – has a positive impact on expected savings only when both parents are born in Canada. Bonikowska (2007) reports a similar, if more delimited, finding in her study of educational spending in immigrant families. She found immigrant parents with low educational attainment typically saved more for their children's education than those with higher levels of education. Bonikowski attributed the lower levels of PSE savings by the more highly educated immigrant parents to a need to invest in their own education and training.

Irrespective of immigrant status, family income exerts a significant impact on parents' accumulated savings for their child's post-secondary education. Among all respondents, parents in the low-income category (those who report a yearly family income of less than $30,000) have accumulated a total of $2,618 for their child's post-secondary

Table 2. Amount Saved by Sample Characteristics

	Expected $ value of savings τ
All Children in Sample	5,108
Sex	
Female	4,827
Male	5,395
Number of Siblings	
None	5,871
One sibling	4,528**
Two or more siblings	4,129**
Language Spoken at Home	
English or French	5,106
Other	5,136
Family Structure	
Dual	5,207
Single	4,672
Mother Working	
Mother at home	5,053
Mother works	5,119
Region	
East	4,902
Quebec	4,024*
Ontario	5,738
West	5,730
Age	
0-4	--
5-8	4,378
9-12	5,211
13-14	5,743
15-16	7,124***
17-18	6,217
Family Income	
Low	2,618
Low medium	4,292***
High Medium	5,660***
High	10,963***
Housing Tenure	
Owns a home with a mortgage	4,813
Owns home without a mortgage	9,052***
Rents	3,530***

Post-secondary Aspirations	
High school	2,840
Post-secondary education (other)	5,352***
University	5,395***
Expect to Receive Grants	
Yes	3,923
No	6,670***
Maybe	6,027**
Aware of CESG program	
Yes	6,311
No	4,295***
Others Have Savings Plans for Child	
Yes	6,614
No	4,895***
Parent Immigrant Status and Parent Education	
Both parents immigrants and neither parent university educated	4,935
Both parents immigrants & one parent university educated	5,174
One parent immigrant and neither parent university educated	6,573**
One parent immigrant & one parent university educated	5,144
Non-immigrants and neither parent university educated	4,742
Non-immigrants & one parent university educated	5,981**
School Achievement (Grades)	
< 70	3,944
70-79 (B)	5,668
80-89 (A)	6,653***
90-100 (A+)	7,469***
Child Received Tutoring	
Yes	6,132
No	4,950**
Parental Involvement with Homework (4-19) ττ	109*
Parental/Child Interaction (3-13) ττ	108
Involvement in Extracurricular Activities (5-25) ττ	185***

Source: Survey of Approaches to Educational Planning, N=5580

Significance tests for categorical variables are based on comparisons with the *reference category*.

τ Savings are conditional on the average values of all the other explanatory variables.

ττ Estimate represents the expected change in savings for a unit increase in the explanatory variable, conditional on the average values of all the other explanatory variables.

* p <.05; ** p <.01; *** p <.001

education fund. They are expected to save approximately $8,000 less than parents with a family income that is greater than $80,000. Home ownership is another indicator of parental socioeconomic status that has a substantial impact on parental savings. Parents who are mortgage-free are able to save approximately $4,200 more than parents who have a mortgage and approximately $5,500 more than parents who rent.

Parents' Educational Planning and Involvement

The educational aspirations that parents' hold for their children significantly influence their savings behaviour. For example, parents who expect their child to attend university have accumulated approximately $5,400 in savings for their child's post-secondary education. This is roughly equivalent to parents who expect their child to attend some other post-secondary institution and some $1,600 more than parents who expect that their child to complete high school. Savings by the latter group can be interpreted as based on an expectation that the child will, in fact, pursue some form of post-secondary education but neither the parent nor the child have specified the particular post-high school pathway. Post-secondary education has been characterised as a hierarchy of prestige and costs that ranks university before college, and both as more desirable than other forms of technical trades training (Schuetze & Sweet, 2003). However, our results suggest parental PSE savings are influenced more by clarity of purpose than by PSE level.

Also consistent with previous research, the savings behaviour of parents is strongly influenced by their expectations of financial assistance and by their knowledge of savings opportunities (Lefebvre, 2004). For example, parents who do not expect to receive grants or bursaries for their child's post-secondary education save about $2,700 more for their child's education fund than do parents who do anticipate receiving some form of subsidy. Whether parents are aware of the Canada Education Savings Grant program has a substantial impact on how much they save for their child's schooling. Parents who are aware of the program save nearly $2,000 more than do parents who are unaware of the program. Parents save more for their child's post-secondary education if someone else also contributes to the plan. Specifically, this group accumulates approximately $1,700 more in savings.

Parental involvement in homework help and monitoring is associated with greater savings for their child's post-secondary education. Hiring a tutor represents an additional investment some parents make to enhance their child's school performance. Those who engage the services of a private tutor save $1,100 more for their child's post-secondary schooling than do other parents. The amount of time parents spend interacting with their children represents yet another form of parental investment although, in the model, this factor was not related to how much parents saved. Nevertheless, the generally positive relationship between parental involvement factors and savings suggests the inter-related nature of parents' investments.

Children's Achievement and Social Engagement

Among the more salient influences on parents' savings is the perception of how well their children are doing in school. Academic achievement is clearly an important indicator of the child's eligibility for post-secondary education. Children with a C aver-

age (less than 70%) receive approximately $4,000 in accumulated savings from their parents, while those with a B average receive approximately $5,700. Children with an A average (80–89%) acquire more than $6,600 in accumulated savings. Children with an A+ average (90% and higher) have nearly $7,500 in parental savings. Children's social engagement also influences parents' savings behaviour: the amount of time that children are involved in extra-curricular activities is positively related to the expected amount of educational savings accumulated by their parents.

SUMMARY AND CONCLUSIONS

In this study we examined the possibility that immigrant children may be excluded from participating in PSE by a lack of family resources. We were responding to evidence of a decline in the earnings of immigrants over the previous two decades and its potential impact on the ability of immigrant parents to save for their children's post-secondary education. There are, of course, various ways to finance post-secondary education but parental savings are among the most important. We also considered other forms of PSE planning and preparation – by children as well as parents – that typically accompany PSE savings in families.

In our sample, immigrant families with one foreign-born parent saved significantly more than immigrant families with two foreign-born parents and both immigrant groups amassed greater savings than families with native-born parents. There were basic socio-economic differences in the sample. Immigrant parents had higher levels of education than the native-born – specifically, more were university graduates. Immigrant families with only one foreign-born parent had the highest level of earnings and home ownership. The proportion of low-income immigrant families with two foreign-born parents was similar to that found among the native-born.

Both family income and wealth (home ownership) proved to be strong predictors of parental PSE savings. Parents in the highest income category and mortgage-free home owners were able to save considerably more than those with low incomes and those who rented. Estimated savings amounts differed most between highest and lowest income groups where the highest saved some 4 times the amount of the lowest income group.

Given that immigrant parents tend to be more highly educated than the native-born, we assessed the effects of parental education on savings across immigrant and non-immigrant groups. Savings were estimated in a regression model that took into account parents' level of income and controlled for other variables assumed related to savings. Under these conditions, our results show that parents' education does not influence the level of immigrant savings. Additionally, these results indicate that immigrant status does not distinguish differences in savings after discounting the effects of family wealth, parenting practices, and children's achievement.

As well as PSE savings, parents make other investments through the K-12 years to prepare their children for the intellectual, emotional, and social demands of the PSE system. These investments are complex, inter-related and, viewed collectively, have been described as a form of intensive parenting. The obligations of intensive parenting are extensive and differences in the effectiveness with which parents undertake this task have been described in the literature with reference to the maintenance of a home-learning environment that complements the work of the school. Parents' role in

reinforcing the relationship between home and school is, principally, the monitoring of homework assignments, although encouraging the social engagement of children in extra-curricular and community activities is also a part of the intensive parents' responsibilities.

In summary, the analysis identified several significant predictors of PSE savings that, together, describe the basis for savings in immigrant and non-immigrant families of school-age children. In addition to income and wealth, these involved a range of parenting beliefs and understandings that included PSE aspirations and financial planning considerations; parental involvement in children's leisure and study activities; and, finally, evidence of children's engagement and achievement. Although immigrant status was not a significant determinant of savings when these factors were statistically controlled, immigrant families – especially those in which both parents are foreign-born – are differently positioned with respect to many of the correlates of saving. We recognize that selection and endogeneity concerns complicate the interpretation of coefficients in the regression model and, consequently, the predicted savings derived from them. This is a common problem when using cross sectional data and we have been cautious in reporting our results.[3] Further thoughts on specific relationships among variables that describe the situation of immigrant parents follow. Each suggests areas of further research.

SES and Aspirations

The immigrant groups in our analysis vary in their level of parental education but in neither case does this measure of SES influence savings to the extent it does in the non-immigrant group. Parental education in the native-born family indicates access to useful forms of cultural and social capital. Among immigrant families, however, strongly held PSE aspirations appear to be the prime motivator underlying savings. The PSE pathway preferred by most immigrants leads to the university, especially where both parents are foreign-born. This is a well established preference among immigrants generally (Anisef, Axelrod, Baichman-Anisef, James, & Turrittin, 2000; Krahn & Taylor, 2005). The university option is, of course, the most expensive and academically demanding of the available PSE options and consequently requires the greatest investment of family resources. PSE aspirations among the native-born are rising rapidly but many opt to train for a vocational career (Davies, 2005). Why immigrant parents, irrespective of their own level of education or current economic means, aspire to and plan for their children's attendance at university alone is of some concern to government apprenticeship boards and vocational educators who have initiated a series of research studies on the PSE pathway choices of selected social groups, including immigrants (CAF, 2004; Menard, Menezes, Chan, & Walker, 2007).

Families with one foreign-born parent have higher incomes than those with two foreign-born parents and they save more for their children's PSE. However, irrespective of income, immigrant parents make their children's education a priority – as indicated, nearly all aspire to a university education – and this is reflected in their level of PSE savings which exceeds that of the native-born. Immigrant students also borrow more from the CSLP for their post-secondary education (Kapsalis, 2006). It would be useful to know if loans complement or supplement long-term savings in immigrant parents' plans for their children's PSE. Future research might examine the relative importance

of savings and loans in the PSE investment strategies of immigrants. These analyses should also recognize the need of well-educated immigrant parents, especially those with relatively low incomes, to invest in their own professional training as well as their children's future PSE (Bonikowska, 2007).

Intensive Parenting and Investment Strategies

Immigrant families are as involved in their children's growth and development as non-immigrant families. Moreover, their parenting practices appear to be much the same as the intensive parenting approach. Immigrants and non-immigrants both establish home-learning environments that include attention to homework, communicating with children, and involvement in extra-curricular and social activities. Among these, both homework involvement and the encouragement of extra-curricular activities are associated with savings. While the various forms of investment tend to reinforce school engagement and purpose, parents who invest too much time in monitoring can discourage children's academic interest and thus diminish the positive effects of PSE savings. The role of homework stress in shaping home–school relations requires further research to determine its effects on parent-child relations and on parental investments.

Parents' PSE savings are often linked to the government CESG program and immigrants appear as aware as native-born parents of this opportunity. Less well-known is the role of such partnerships between individuals and governments in shaping the PSE plans of parents from different SES and cultural backgrounds. Parents also make arrangements with other institutions to further their children's education. For example, immigrant parents frequently invest in tutoring services. Tutoring may represent an important difference in immigrant parents' pattern of involvement in their children's education but to date little research has addressed this topic in the Canadian context (Sweet & Roberts, 2010).

Children's Achievement and Savings Amounts

There are distinct differences in the achievement of children from families with one or two foreign-born parents. Children from the latter group excel in their studies while children from the former group have achievement levels that are similar to non-immigrant children. In general, children's achievement reinforces parents' commitment of resources. However, in the case of immigrant families this basic relationship needs qualification. In families with two foreign-born parents, children have relatively high levels of achievement but their parents' lower incomes and less-settled housing arrangements make PSE savings difficult. In families with one foreign-born parent, children's achievement demonstrates less commitment but their parents' aspirations and wealth appear sufficient to sustain relatively high levels of PSE savings. The extent to which children's school performance influences differently situated but similarly motivated immigrant parents' investment of family resources remains an important issue that needs further research.

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APPENDIX

Appendix 1:
Descriptive statistics for the variables used in the analysis

Variable	Both Parents IImmigrant: Proportion/Mean	One Parent Immigrant Proportion/Mean	Native Born Proportion/ Mean
Sex			
Female	0.47	0.53	0.49
Male	0.53	0.47	0.51
Number of Siblings			
None	0.41	0.38	0.37
One sibling	0.38	0.42	0.43
Two or more siblings	0.21	0.19	0.19
Language Spoken at Home			
English or French	0.46	0.97	0.99
Other	0.54	0.03	0.01
Family Structure			
Dual	0.85	0.82	0.82
Single	0.15	0.18	0.18
Mother Working			
Mother at home	0.23	0.15	0.17
Mother works	0.77	0.85	0.83
Region			
East	0.05	0.11	0.25
Quebec	0.08	0.10	0.21
Ontario	0.51	0.45	0.25
West	0.36	0.34	0.29
Age			
5-8	0.14	0.13	0.13
9-12	0.31	0.33	0.31
13-14	0.16	0.18	0.17
15-16	0.17	0.18	0.19
17-18	0.22	0.18	0.18
Parent Education			
At least one parent with a university education	0.45	0.35	0.21
No parent with a university education	0.55	0.65	0.79

Variable	Both Parents IImmigrant: Proportion/Mean	One Parent Immigrant Proportion/Mean	Native Born Proportion/ Mean
Family Income			
Low	0.22	0.16	0.19
Low medium	0.23	0.17	0.22
High medium	0.29	0.34	0.30
High	0.26	0.34	0.30
Housing Tenure			
Owns a home with a mortgage	0.53	0.64	0.58
Owns a home without a mortgage	0.20	0.21	0.24
Rents	0.27	0.15	0.19
Postsecondary Aspirations			
High school	0.05	0.04	0.09
Postsecondary education (other)	0.16	0.25	0.33
University	0.80	0.71	0.58
Expect to Receive Grant:			
Yes	0.36	0.28	0.31
No	0.38	0.49	0.44
Maybe	0.26	0.22	0.25
Aware of CESG program			
Yes	0.51	0.49	0.44
No	0.49	0.51	0.56
Others Have Savings Plans for Child			
Yes	0.09	0.20	0.14
No	0.91	0.80	0.86
School Achievement (Grades)			
<70	0.11	0.19	0.18
70-79 (B)	0.34	0.33	0.34
80-89 (A)	0.37	0.31	0.32
90-100 (A+)	0.19	0.17	0.17
Child Received Tutoring			
Yes	0.17	0.18	0.14
No	0.83	0.82	0.86
Parental Involvement with Homework (4-19)	11.99	12.16	12.13
Parent/Child Interactions (3-13)	10.23	10.99	10.81
Involvement in Extracurricular Activities (5-25)	12.29	12.71	12.36
Sample N	460	504	4,616

NOTES

1. The SAEP series has been discontinued but key items on parental involvement and PSE savings plans are included in Statistics Canada's *Access and Support to Education and Training Survey* (Knighton, Hujaleh, Iacampo, & Werkneh, 2009).
2. We considered using a tobit regression as somewhat less than half the respondents were non-savers. However, the tobit approach assumes that response variables, in this instance savings, can be modeled by a censored normal distribution. In our data, the distribution of savings is non-negative with a strong positive skew, and more closely approximates a gamma distribution (Breen, 1996).
3. An endogeneity problem may occur when variables that are theoretically independent are in fact dependent (endogenous) in the system being modeled. In such instances, it is possible that estimates for the endogenous explanatory variable(s) would be biased and inconsistent. This condition also exists when independent variables assumed to affect a particular outcome depend themselves on that outcome. The typical solution to the endogeneity problem is to employ an "instrumental variables" approach. This approach requires another variable to act as a suitable instrument or substitute for the endogenous explanatory variable -- i.e. a variable that is conditionally correlated with the endogenous variable but not present in the original regression equation. Unfortunately, variables that met these criteria were not available in our data set.

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