

Article

Personal networks and the economic adjustment of immigrants

by Derrick Thomas

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Introduction

For two decades, Canada has maintained comparatively high levels of immigration¹ and almost 1 in 4 adults in this country is now foreign-born. Labour market needs are a key consideration in determining how many immigrants are admitted to Canada each year.² More immigrants are now selected for their training and job skills and they come from a wider variety of source countries than in the past. Despite being more highly educated, however, recent immigrants are having more difficulty adjusting to the Canadian economy than did their predecessors. It is taking newcomers longer to achieve employment and income levels similar to those of the Canadian-born.³

In searching for explanations, researchers have looked at aspects of human capital such as language ability, literacy, education and work experience. But these factors do not fully account for the fact that many recent immigrants do not earn incomes commensurate with those of other Canadians.⁴ Other attempts to explain immigrants' diminishing relative earnings have focused on problems with the recognition of foreign credentials,⁵ intangible

characteristics like individual drive and ambition,⁶ and institutional or sectoral change in the Canadian economy.⁷

A factor that has not often been considered is the social capital of immigrants—that is, the personal networks⁸ that they are able to mobilize in their economic interests. While social capital may be more difficult to measure than human capital, it is also widely thought to be associated with economic success.⁹ The social capital of individuals is usually quantified in terms of the size and diversity of their personal network of friends or contacts.

Although few surveys have gathered such data, in 2008, Statistics Canada's General Social Survey (GSS) collected cross-sectional data on the social networks of a broad range of Canadian adults. The data afford an opportunity to compare the size and structure of the networks of both immigrants and the Canadian-born. Using the GSS data, this article examines whether the personal networks of immigrants, along with more typically used measures of human capital, might explain differences in employment and earnings. Do personal networks shed

any light on the gap in employment rates and income levels between immigrants and other Canadians? Are more limited personal networks associated with lower employment rates and incomes among Canada's more recent immigrants?

Cross-sectional data can present some limitations. The criteria for selecting or admitting immigrants have changed over time, as have the countries from which immigrants have arrived and their reasons for coming to Canada. Thus one cannot clearly distinguish in the cross-sectional data the effects of an immigrant's age, time in Canada or arrival cohort. Similarly, without longitudinal data allowing events to be ordered, it is difficult to tell whether recent immigrants are less often employed than other Canadians because they have more limited personal networks, or if immigrants have more limited personal networks because they are less often employed.

Understanding social capital and personal networks

Social scientists use the term 'social capital' to describe the material advantages a person derives from connections with

What you should know about this study

Source of data

Data for this study are from Cycle 22 of the General Social Survey (GSS) conducted in 2008, which collected information on the social networks of Canadians. Its target population included every person aged 15 and over residing in one of the ten provinces and not a full-time resident of an institution. Note that people who were unable to answer the questions in English or French were not interviewed, they were considered non-respondents. While they constitute a small part of the Canadian population, those unable to speak an official language represent a significant proportion of the recent immigrant population. The fact that the survey did not collect data for such people can bias the results but in a way that is predictable given the association between language ability and the capacity to communicate, make friends, find a job and earn income: the social networks, employment rates and incomes of foreign-born Canadians are likely to be overestimated in the survey sample.

The analysis focused on 17,934 respondents aged 18 to 75, of which 14,980 were Canadian-born and 2,954 were foreign-born.

Definitions

Canadian-born: Persons who were born in Canada, including persons born abroad but who were Canadian citizens at birth (e.g. children born to Canadian diplomats or defence personnel).

Immigrant/foreign-born: Persons who were born abroad, including landed immigrants and temporary residents such as refugee claimants, students and temporary workers. Landed immigrants represent 90% of the foreign-born sample. The terms 'foreign-born' and 'immigrant' are used interchangeably in this article.

Physical, human and social capital: Economists distinguish different forms of capital: physical, human and social. **Physical capital** consists of equipment, buildings, money and resources owned by employers or firms. **Human capital** belongs to the individual worker and consists of things like education and work experience. **Social capital** is an individual's personal network of contacts. Employers own physical capital and compete for workers who possess the most effective human and social capital, the factors which drive employment prospects and wages.

Personal or social network: All the contacts through which an individual might receive information or support of any kind. In this article, a personal network includes **close relatives** (excluding members of one's household); **close friends** (people with whom the respondent felt at ease, could talk to about what was on their mind or call on for help); and more distant or **other friends** (acquaintances). The terms "personal network" and "social network" are used interchangeably.

Size of network: The size of a respondent's personal network was determined by the total number of contacts (including close relatives, close friends and other friends) reported to interviewers.

Strength of ties: The 2008 GSS asked about the number of relatives (excluding household members) and the number of friends to whom the respondent felt close. A high ratio of close relatives and friends to the total number of contacts distinguishes a network characterized by strong ties. The survey also asked about the frequency of contact with friends and relatives: people in daily contact can also be said to have strong ties to their network. To measure strength of ties, a dichotomous indicator was set to '1' for those who had daily contact with friends and relatives and to '0' otherwise.

Network diversity: The variety of occupations within which the respondent had contacts, including acquaintances. Respondents were asked if they knew at least 1 person in each of 18 occupations. The number of different occupations among which they had contacts is a measure of network diversity. The 2008 GSS questionnaire used a "position generator"¹: the diversity count was the number of occupations receiving a 'yes' answer to the following question:

"Do you know any...? social workers; police officers or firefighters; food or beverage servers; landscaping or grounds maintenance workers; managers in sales, marketing or advertising; computer programmers; instructors or leaders in recreation and sport; security guards; engineers; farmers; nurses; janitors or caretakers; accountants or auditors; graphic designers or illustrators; delivery or courier drivers; childhood educators or assistants; sewing machine operators; or carpenters."

Non-participants in the labour force and the unemployed: Persons who had no job and had not looked for one in the past month were considered non-participants in the labour force. Those who had not worked in the past

What you should know about this study (continued)

week but had looked for work at some point during the past four weeks were considered unemployed.

Analysis models

Probit model

In this article, a probit model was used to determine the likelihood that a person would be employed, depending on a number of characteristics (see Table A.1). The probit coefficient for each chosen characteristic (e.g. sex, age, education) shows its contribution to the likelihood of being employed in relation to the other characteristics. The coefficient measures the impact of a particular characteristic on employment, while holding constant all other independent variables. A positive coefficient means that the characteristic is associated with a higher probability of employment; a negative coefficient indicates a lower probability. The magnitude of the coefficient shows how much an individual with that characteristic differs from the reference group. For example, in Model 2, having a university degree has a coefficient of 0.306, while having high school or less, as the reference group, is given a coefficient of 0. On the other hand, 'college diploma', with a coefficient of 0.205, is more strongly related to employment than 'high school or less' but not as strongly as 'university degree'.

In order to calculate the probability that an individual with a given set of characteristics will be employed, all the coefficients for that set of characteristics are combined together with a constant that expresses the base probability of employment for all respondents. In order to isolate and

examine the effects of time in Canada and network diversity all the other characteristics were held at their most typical or average value. The illustration in Chart 2, for example, is for a 40-year-old married male with a postsecondary diploma who lives in a census metropolitan area, has a mother tongue other than English or French and is a member of a visible minority group. However, one could use the same coefficients to calculate the probability of employment for an individual with any set of characteristics.

Regression model

The impact of social capital and various kinds of human capital on annual income is explored using ordinary least squares (OLS) regression analysis (see Table A.2). The dependant variable is actually the natural log of earnings as this corrects for skewness in the raw measure. A quadratic term for age is included along with the original term as the effect of age is not linear and tends to dampen with time. Most of the other terms are dichotomies which reflect the presence or absence of a characteristic. The technique was initially pioneered by Mincer for the study of human capital (see Note 18).

1. "...the Position Generator has not only proven to be a consistently constructed, but also a popular and consistently applied method for the measurement of social capital." See Van der Gaag, Martin, Tom A. B. Snijders and Henk D. Flap. 2004. "Position generator measures and their relationship to social capital measures". Joint research project of the universities of Utrecht, Groningen and Amsterdam, Dutch Organization for Scientific Research project number 510-50-204.

family, friends and acquaintances. Social capital is about the personal networks of individuals. It consists mainly in "...a durable network of more or less institutionalized relationships of mutual acquaintance and recognition."¹⁰

Employers invest in capital in anticipation of a return. While physical capital (land, buildings and equipment) is owned by employers, human and social capital belong to the workers themselves; they own their education, skills, work experience and personal networks.¹¹ Employers must compete for—and

be willing to pay a premium for—workers with a large and varied network of contacts; such workers can give a business wider access to markets, suppliers and innovative ideas. Networks can also reduce the cost of searching for a qualified and dependable employee if a mutual contact can vouch for the prospective employee. Personal networks are, in short, conduits for information on wages, jobs and business prospects. For these reasons, personal networks are thought to lead to better jobs and higher earnings.¹²

Personal networks and economic success are potentially linked in a number of ways. Individuals may gain useful contacts through their employment or through the opportunities afforded by higher income. Individuals can also mobilize their existing personal networks in order to find a job or a better job.

Research distinguishes between strong and weak ties in personal networks.¹³ Strong ties are those with close relatives and friends—the people with whom one shares a bond of intimacy and relatively frequent contact. People in a network

of strongly tied individuals are all apt to know each other well. While strong ties may provide social and emotional support, a network of more weakly connected individuals is thought to be more effective in generating economic benefits. Strongly tied people might share the same information and resources while acquaintances outside one's close circle may pass on unique information on economic or employment opportunities.¹⁴ Therefore, personal networks are thought to be more valuable if they are diverse, that is, contain connections with individuals from a variety of different networks.¹⁵

Immigrants had smaller and less diverse social networks

People immigrating to Canada often leave family and friends behind and must reconstruct their social networks in their adopted country. According to the 2008 GSS, the social networks of the foreign-born are smaller and less diverse than those of the Canadian-born. Excluding members of their households, the foreign-born had, on average, fewer relatives to whom they felt close. They also had fewer close friends and other friends compared with people born in Canada (Table 1).

Individuals born in Canada had, on average, a network consisting of 49 relatives and friends, while those born abroad averaged 41 contacts (Table 1). Men tended to report more contacts than women and personal networks tended to decline in size as people aged.

The foreign-born tended to describe a smaller proportion of their relatives and friends as close and had less frequent contact with their network. For example, about 43% of the foreign-born stated that they were in daily contact with relatives and friends, compared with 48% of the Canadian-born (Table 1).

Social networks can also be characterized by the degree to which people participate in organizations and associations. In general, people born outside Canada were less likely

to be a member of or participate in an organization. About 57% of the foreign-born were involved in at least one group, compared with 67% of Canadian-born. The types of groups they were involved with also differed. People born outside Canada were more likely to belong to a religious group than were the Canadian-born and were just as likely to participate in a political or cultural group. They were less likely to be in a union or professional association, a sports group or a community organization.

The networks of the foreign-born were also less diverse in terms of the number of different occupations held by their acquaintances. Respondents were asked if they knew anyone who worked in each of 18 distinct occupations. (For the list of occupations, see "Network diversity" in "What you should know about this study".) According to the data, the foreign-born knew at least

1 person in an average of 9 different occupations. Those born in Canada knew people in about 11 different occupations (Chart 1 and Table 1).

The size and diversity of personal networks did not differ substantially across broad categories of immigrants (such as refugees, family members being reunited, and skilled workers, selected under the points system).¹⁶ Among the foreign-born, members of visible minority groups had less diverse networks than others.

Social networks of immigrants differed according to time in Canada

Having smaller and less diverse personal networks might be a temporary issue for newcomers. Immigrants can build up their networks in Canada over time. They may make friends, join organizations or otherwise associate with a more diverse array of people.

Table 1 Social networks of foreign-born and Canadian-born adults aged 18 to 75

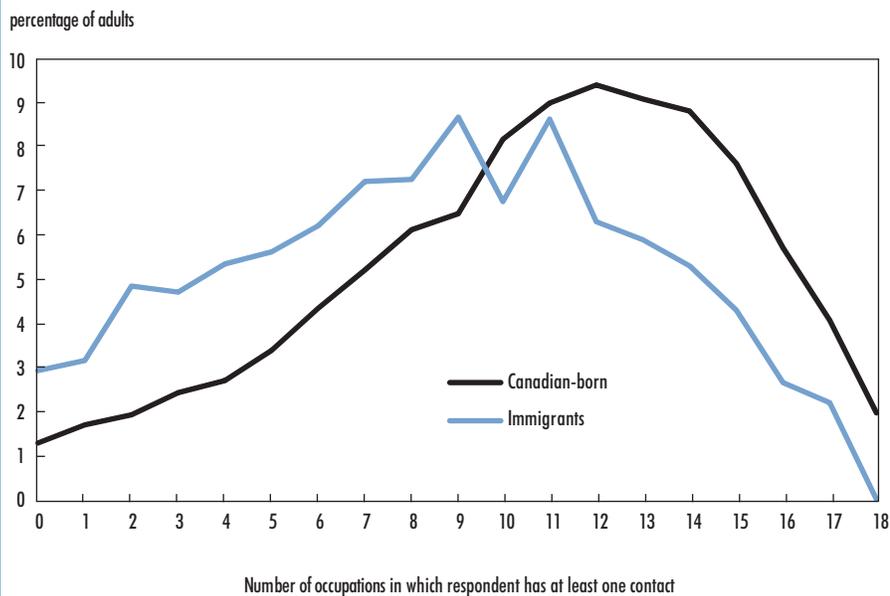
| | Foreign-born | Canadian-born† |
|---|--------------|----------------|
| average number | | |
| Contacts | | |
| Friends and relatives | 40.9* | 48.6 |
| Close relatives | 6.8* | 7.6 |
| Close friends | 5.8* | 6.2 |
| Other friends | 28.3* | 35.0 |
| Contacts in city of residence | | |
| Close relatives | 2.8* | 3.2 |
| Close friends | 3.9* | 4.3 |
| Other friends | 17.7* | 22.1 |
| Diversity of network | | |
| Different occupations among contacts | 8.6* | 10.6 |
| average percentage | | |
| Strength of ties | | |
| Contacts considered close | 40.9* | 44.2 |
| percentage | | |
| Frequency of contact | | |
| Have daily contact with friends and relatives | 43.0* | 48.4 |
| Membership in organizations | | |
| Member of at least one organization | 57.4* | 67.2 |

† reference group

* statistically significant difference from the reference group at p < 0.05

Source: Statistics Canada, General Social Survey, 2008.

Chart 1 Immigrants tend to have contacts in a smaller number of occupations



Source: Statistics Canada, General Social Survey, 2008.

Table 2 Social networks of foreign-born adults aged 18 to 75, by time in Canada

| | Years in Canada | | |
|---|-------------------|-------------|-------------|
| | Less than 5 | 5 to 9 | 10 or more† |
| average number | | | |
| Contacts | | | |
| Friends and relatives | 37.7 | 36.7 | 42.3 |
| Close relatives | 6.0 | 6.9 | 6.9 |
| Close friends | 5.2 | 5.6 | 5.9 |
| Other friends | 25.6 | 24.5 | 29.5 |
| Contacts in city of residence | | | |
| Close relatives | 1.7 ^{E*} | 1.5* | 3.6 |
| Close friends | 2.7* | 3.8 | 4.1 |
| Other friends | 10.7* | 14.3* | 19.6 |
| Diversity of network | | | |
| Different occupations among contacts | 7.4* | 7.9* | 9.0 |
| average percentage | | | |
| Strength of ties | | | |
| Contacts considered close | 47.6 | 44.6 | 43.7 |
| percentage | | | |
| Frequency of contact | | | |
| Have daily contact with friends and relatives | 41.7 | 45.0 | 42.7 |
| Membership in organizations | | | |
| Member of at least one organization | 44.6* | 51.5* | 60.6 |

† reference group

* statistically significant difference from the reference group at $p < 0.05$

Source: Statistics Canada, General Social Survey, 2008.

Some aspects of the networks of immigrants differed according to when they arrived in Canada. Immigrants seemed to build more diverse personal networks the longer they lived in Canada. They tended to know people in a wider range of different occupations, even after controlling for age, sex, mother tongue and residence in a major city.

As well, the proportion of immigrants who were members of at least one organization, association or club was larger for those who had been in Canada 10 years or more than it was for recent immigrants. However, there was no difference between the overall size of the networks of recent immigrants and that of immigrants who had been in Canada for 10 years or more. But immigrants did tend to know more people in their city of residence the longer they lived in Canada (Table 2).

Employment among immigrants was associated with the diversity of their social network

Finding a job is a key aspect of economic success in Canada. Much of the literature related to job searching in North America and Europe¹⁷ mentions the importance of personal networks. Canadian data from the 2008 GSS indicate that just over 26% of both Canadian-born and foreign-born workers had relied, at least partly, on relatives and friends to find their main job.

The GSS 2008 asked participants to identify the strategies they used to find their main job. Immigrants were more likely to be self-employed than the Canadian-born. They were less likely than the Canadian-born to contact an employer or to be recruited directly by an employer. They were more likely to use the help of close friends to find employment. Immigrants also used the internet more often. While other relatives were just as important for immigrants as for the Canadian-born, the parents of immigrants were less likely to have assisted in the job search (perhaps because they might live outside Canada) (Table 3).

To calculate the probabilities that a person with certain characteristics would be employed, probit models were used (see “What you should know about this study”). The analysis indicates that the occupational diversity—though not the size, nor the closeness—of someone’s personal network is associated with the likelihood that they are employed. It is possible that having contacts among a narrower range of occupations could partially explain why recent immigrants are less likely to be employed (Chart 2 and Model 2 in Table A.1).

Personal networks are not the only factor associated with employment. Human capital, as reflected in such characteristics as education and age, is more strongly related than social capital to the probability of employment. More educated and older people are more likely to have a job. An individual’s sex and marital status are also factors—married men are more likely to be employed and married women less likely. People who live in a large city are also more likely to be working than people who do not (Model 1 in Table A.1).

Characteristics connected to recent immigration, such as having arrived within the last five or ten years or being a member of a visible minority, are associated with a diminished probability of employment.

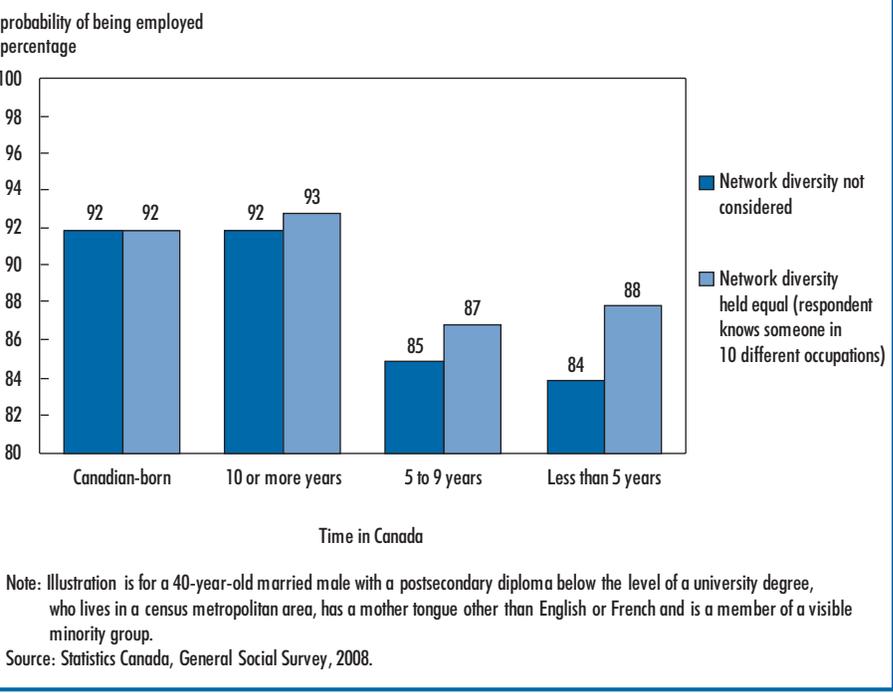
The data allow for the calculation of the probability that an individual with any particular combination of these characteristics will be employed.¹⁸ For example, without considering the size or diversity of his personal network, the probability of employment for a 40-year-old married man with a college diploma who lives in a major city, has a mother tongue other than English or French and is a member of a visible minority group is about 92%, provided that he was born in Canada. The probability for an individual with the same characteristics who immigrated less than 5 years ago is about 84%; it is about 85% for an immigrant

Table 3 Strategies used by adults aged 18 to 75 to find their main job, by place of birth

| | Foreign-born | Canadian-born† |
|--|-------------------|----------------|
| | percentage | |
| Recruited by employer | 7.6* | 11.5 |
| Contacted employer | 21.4* | 24.0 |
| Self-employed | 16.0* | 12.2 |
| Internet | 10.3* | 7.3 |
| Help wanted ad | 9.2 | 9.6 |
| Close friend | 13.0* | 10.7 |
| Another friend | 8.0 | 7.2 |
| Co-worker | 2.0 ^E | 2.5 |
| Parent | 1.4 ^{E*} | 5.0 |
| Another relative | 4.2 | 3.6 |
| On-campus recruitment | 2.6 ^E | 2.5 |
| Canada Employment Centre/government agency | 1.8 ^E | 1.8 |
| Recruitment agency/head-hunter | 4.4* | 2.4 |
| Other | 3.8* | 5.0 |

† reference group
 * statistically significant difference from the reference group at p < 0.05
 Note: More than one response was allowed.
 Source: Statistics Canada, General Social Survey, 2008.

Chart 2 Recent immigrants have a greater probability of being employed when the diversity of their networks is the same as that of other Canadians



in Canada between 5 and 9 years. Immigrants who have been in Canada 10 years or more are about as likely to be employed as the Canadian-born (Chart 2).

Taking individuals with the same characteristics as above, but holding equal at 10 the number of occupations within which they have at least one contact, the probability of employment for those born in Canada is about 92% and about 88% for immigrants who arrived in Canada less than 5 years ago. This illustrates how recent immigrants have a greater probability of being employed when the diversity of their networks is the same as that of other Canadians (Chart 2).

Among the measures of personal networks that were tested, only diversity was associated with being employed. Neither the overall number of relatives, friends and acquaintances nor daily contact with them was associated with employment. The proportion of contacts considered close was actually connected with a slightly reduced probability of employment.

Social networks and personal income

For most people, earnings from employment or self-employment constitute most of their income and those without employment are likely to have lower personal incomes.¹⁹ In order to focus on the association between personal networks and income, the following analysis includes only full-time, full-year workers.

As with employment, personal income levels vary according to characteristics such as age, sex, marital status, education, place of residence, mother tongue and visible minority status. Human capital variables (such as education and work experience) were associated with higher income, much as they were associated with a higher probability of having a job. When all these variables were held constant, the annual incomes of recent immigrants were

almost one-third lower than those of the Canadian-born. Immigrants who had been in Canada between 5 and 9 years had incomes about 20% lower than the Canadian-born, while those in the country for 10 years or more had incomes similar to the Canadian-born (Model 1 in Table A.2).

Adding personal network characteristics to the mix, we find that neither the size of someone's personal network, nor frequent contact with friends and relatives, nor close or strong ties were associated with personal income. However, the diversity of workers' personal networks was positively associated with their annual income (Model 2 in Table A.2).

Each additional occupation within which an individual had a contact was associated with a 1.4% increase in personal income. Regardless of time in Canada or place of birth, people with more diverse networks had higher incomes (Chart 3). Indeed, the difference could be over \$10,000 per year, depending on the number of contacts in different

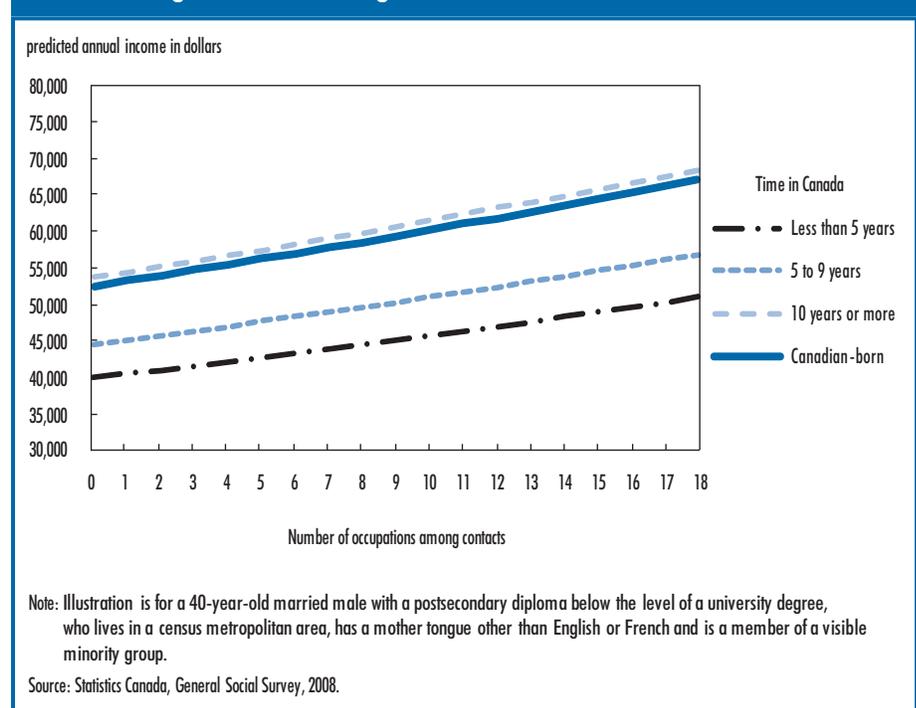
occupations. However, the effect of having a diverse network was not so large as to entirely explain the income differences between recent immigrants and other Canadians.

Summary

The social networks of immigrants are smaller and less diverse than those of the Canadian-born. However, data from the 2008 GSS suggest that the networks of immigrants may grow and diversify the longer they are in Canada.

Human capital, such as education and work experience, is an important determinant of employment and income but recent immigrants have been having some difficulty in quickly converting their educational advantages into economic ones. Considering social networks in conjunction with human capital may contribute to explaining some of the differences between the labour market experiences of newly arrived immigrants and those of other Canadians.

Chart 3 Workers with more diverse networks have higher incomes, regardless of immigration status or time in Canada



Simply having more contacts or close ties did not appear to be an advantage economically. Neither having more close friends and relatives nor having daily contact with them increased the probability of being employed for both recent immigrants and other Canadians. Having a higher proportion of close contacts actually seems to be linked with lower chances of having a job. Similarly, personal income was not significantly associated with the overall number of friends and relatives, how close one felt to them, or the frequency of contact with them.

There is an association, for all Canadians, between having a diverse network—contacts in a wide number of occupations—and being employed. Employment and personal networks are certainly connected, although in potentially complex ways. Individuals may meet people and develop more diverse networks through their job. More diverse networks may also help in finding a job or a better job.

The annual incomes of full-time employees are also related to the diversity of their network. Workers with contacts in a number of different occupations had higher incomes than workers with contacts in fewer occupations.

The less diverse personal networks of immigrants cannot entirely account for their relatively lower employment rates and incomes. However, the economic adjustment of immigrants may be related, at least in part, to making contacts in different occupations. Broadly speaking, it seems that the economic and social adjustments of immigrants are linked and occur hand in hand.



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5. McDade, K. 1988. Barriers to Recognition of the Credentials of Immigrants in Canada. *Studies in Social Policy*, Institute for Research on Public Policy; Mata, Fernando. 1999. "The non-accreditation of immigrant professionals in Canada: societal dimensions of the problem." Paper presented at the Conference on Shaping the Future: Qualifications Recognition in the 21st century. Toronto, Ontario.
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12. Erickson, Bonnie H. 2005. "Good networks and good jobs: the value of social capital to employers and employees." *Social Capital: Theory and Research*. Nan Lin, Karen Cook and Ronald S. Burt (eds.). Transaction Publishers.
13. Granovetter, Mark. 1982. "The strength of weak ties: a network theory revisited." *Social Structure and Network Analysis*. Peter Marsden and Nan Lin (eds.). Sage.
14. Granovetter, Mark. 1982.
15. Granovetter, Mark. 2005.
16. Immigrants come to Canada under a number of programs which reflect the reasons for their admission. For example: the refugee program is intended for the protection in Canada of people who are outside their own country because of a well founded fear of persecution, the Family Class is intended to allow the unification or reunification of families in Canada, skilled workers are selected according to a points system that reflects their value to employers and the Canadian economy.

17. Loury. 2006. See also Drever, Anita I. and Onno Hoffmeister. 2008. "Immigrants and social networks in a job-scarce environment: the case of Germany." *International Migration Review*. Vol. 42, no. 2.
18. Standard human capital or Mincer models (Mincer, Jacob. 1974. *Schooling, Experience, and Earnings*. New York: National Bureau of Economic Research and Chiswick, Barry R. 1978. "The effect of Americanization on the earnings of

foreign-born men." *Journal of Political Economy*. Vol. 86, no. 5) were used to calculate the employment probabilities and personal incomes for individuals with the characteristics of interest. Other characteristics are held at their average or most typical values. The contribution of social capital was assessed by a second model that added network measures to the standard human capital model (see Table A.1 and Table A.2).

19. The 2008 GSS collected information only on overall income and did not ask specifically about earnings. The analysis with respect to income focuses on those who reported that they earned most of their income from employment or self-employment. Excluded from the analysis were full-time students, those with no earned income or who worked less than full-time or less than 40 weeks in the previous year. Individuals who arrived in the country after 2006 are not considered in the analysis.

Table A.1 Models estimating the probability of being employed for all adults aged 18 to 75

| | All adults aged 18 to 75 | | All adults aged 18 to 75 | |
|---|--------------------------|----------------------|--------------------------|----------------------|
| | Without social networks | With social networks | Without social networks | With social networks |
| | Model 1 | Model 2 | Model 1 | Model 2 |
| probit coefficient | | | | |
| Constant | | | | |
| Intercept | -1.927* | -2.264* | | |
| In Canada | | | | |
| Less than 5 years | -0.375* | -0.238* | | |
| 5 to 9 years | -0.362* | -0.263* | | |
| 10 years or more | 0.043 | 0.083 | | |
| Born in Canada† | ... | ... | | |
| Age | | | | |
| Age | 0.153* | 0.153* | | |
| Age squared | -0.002* | -0.002* | | |
| Sex | | | | |
| Men | 0.005 | 0.000 | | |
| Women† | ... | ... | | |
| Marital status | | | | |
| Married or common-law women | -0.226* | -0.253* | | |
| Not married† | ... | ... | | |
| Interaction of sex and marital status | | | | |
| Married or common-law men | 0.572* | 0.571* | | |
| Education | | | | |
| University degree | 0.424* | 0.312* | | |
| College diploma | 0.294* | 0.201* | | |
| Some postsecondary | 0.141* | 0.048 | | |
| High school or less† | ... | ... | | |
| probit coefficient | | | | |
| Residence | | | | |
| In census metropolitan area | | | 0.040 | 0.091* |
| Not in census metropolitan area† | | | ... | ... |
| Mother tongue | | | | |
| Language other than English or French | | | -0.059 | -0.056 |
| English and/or French† | | | ... | ... |
| Visible minority | | | | |
| Member of a visible minority | | | -0.121* | -0.074 |
| Not in a visible minority† | | | ... | ... |
| Social networks | | | | |
| Size of network | | | | |
| Number of friends and relatives | | | ... | 0.000 |
| Frequency of contact | | | | |
| Maintain daily contact | | | | -0.008 |
| Don't maintain daily contact† | | | ... | ... |
| Strength of ties | | | | |
| Average percentage of contacts considered close | | | ... | -0.002* |
| Diversity of network | | | | |
| Number of different occupations among contacts | | | ... | 0.043* |

† reference group

* statistically significant difference from the reference group at $p < 0.05$

Source: Statistics Canada, General Social Survey, 2008.

