The Influence of Social Capital on the Wages of Immigrants and Native-Born Canadians[1]

บทบาทของทุนสังคมต่ออัตราค่าจ้าง เปรียบเทียบแรงงานอพยพจากประเทศอื่นและแรงงานที่เกิดในประเทศแคนาดา

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Abstract

This study examines the role of social capital in explaining the wage differences between native and foreign born Canadians. The study finds that the wages of both groups are positively influenced by social capital. These social links have a significant impact on the time that it takes immigrants to catch up to native-born incomes, the so-called "years in Canada effect." The acquisition of social capital is of particular benefit to visible minority immigrants as it closes their wage gap with native-born Canadians much sooner than those without this capital. Furthermore, social capital also reduces the wage gap between males and females, and, visible and non-visible minorities.

Keywords: *Social Capital, Wages, Immigrants*

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บทคัดย่อ

งานศึกษานี้วิเคราะห์ตลาดแรงงานในประเทศแคนาดาโดยศึกษาบทบาทของทุนสังคม (social capital) ต่ออัตราค่าจ้างของแรงงานที่เกิดในประเทศ เปรียบเทียบกับแรงงานซึ่งอพยพมาจากประเทศอื่น ผลการศึกษาพบว่า ทุนสังคมมีบทบาทสำคัญช่วยร่นระยะเวลาที่แรงงานต่างด้าวต้องใช้ในการปรับตัว จนกระทั่งได้รับอัตราค่าจ้างทัดเทียมกับแรงงานที่เกิดในประเทศและมีระดับทุนมนุษย์เท่ากัน กล่าวอีกอย่างหนึ่งคือ ทุนสังคมสามารถช่วยลด "Years in Canada effect" ได้ การศึกษานี้ยังพบอีกว่า ทุนสังคมเป็นประโยชน์ต่อแรงงานที่อพยพมาจากทวีปเอเชีย และแอฟริกา (visible minorities) มากกว่าแรงงานที่อพยพมาจากประเทศอเมริกา หรือทวีปยุโรป (non-visible minorities) และเป็นประโยชน์ต่ออัตราค่าจ้างของแรงงานหญิงมากกว่าแรงงานชาย

คำสำคัญ: *ทุนสังคม ค่าจ้าง แรงงานต่างด้าว*

I. Introduction

The differences in incomes between native and foreign-born Canadians have been studied extensively over the last twenty years. Are immigrants' earnings less than those of the native-born? If so, by how much? Do immigrant earnings catch up to native-born incomes over time? Has the "quality" of immigrants changed over the last half century? From a public policy perspective, the question as to how to best integrate immigrants into Canadian life is an important one. Current population projections suggest that future population growth in Canada will only be achieved through immigration and hence continued advances in productivity will occur only with the help of new Canadians.

Previous labour-market studies have focused on trying to explain observed wage differences between native born and foreign born workers in terms of human-capital formation (e.g., Schaafsma and Sweetman (2001), Hum and Simpson (1999), and, Grindstaff and Trovato (1986)); language skills (Chiswick and Miller (1995), Finnie and Meng (2002)); discrimination (Pendakur and Pendakur (1998)) and changes in immigration policy (Bloom, Grenier, and Gunderson (1995), and, De Silva (1997)). This paper examines the wage differentials between immigrants with a stock of social capital and immigrants without this stock to see, first,

whether social capital confers a labour-market payoff to immigrants; and second, whether social capital helps to reduce the earnings differential between native and foreign-born workers.

The definition of social capital includes civic engagement, associational participation, social norm, trust, cooperation and so on. Various studies on social capital and its socio-economic effect define its meaning differently. Scholars on this issue, however, underline the importance of social relationships, primarily social networks, as the heart of what social capital is. Woolcock (2000) gives a concise definition: "Social capital refers to the norms and networks that facilitate collective action." The definition has been well-adopted by the World Bank and many researchers. Sobel (2002), describing it from the economist's standpoint, defines social capital as the "circumstances in which individuals can use membership in groups and networks to secure benefits." Narayan and Pritchett (1997), Portes (1998), and Putnam (2000) use a similar definition.

Dominguez and Watkins (2003) examine the social networks of low-income African-American and Latin-American mothers in Boston. The authors find that formal institutional networks are a substitute for the informal network of family and friends as the sources of food, childcare, jobs and emotional support; networks that lead to economic success and upward mobility include information and advice gained from heterogeneous or interclass relationships.

Portes (1995), and Light and Karageorgis (1994) have investigated the networks of various ethnic groups and immigrants in the United States. Both studies have similar findings; different ethnic groups possess different levels of community-based networks explaining why some ethnic immigrants perform better than others. For example, Koreans and Chinese, in California, are doing better than Mexicans and Dominicans.

Narayan and Pritchett (1997) match the data from the Tanzania Social Capital and Poverty Survey (SCPS) on individual associational activity and their related social norm with the data from household survey. The authors find that the stock of village social capital has a significant impact on household expenditure; one standard deviation increase in social capital increases household

expenditure per person by 20-30 percent. This impact is equivalent to an increase in non-farming assets and is triple the impact of educational level.

This paper incorporates the concept of social capital into the human capital earnings model to help explain the differences in earnings between native and foreign-born Canadians. A social capital index is developed by including the networks of family and friends, and association memberships. The index then is used to explain the earnings gap between foreign and native-born workers as well as the earnings differences within the immigrant population. Social capital, and the acquisition of social capital, also helps to explain how some immigrants "catch up" to the earnings of the native born faster than others.

Section II of this paper presents the model and data. This is then followed by section III which analyzes the empirical results. Finally, section IV concludes.

II. Empirical Framework and The Data

The empirical model used in this study is Chiswick's (1978) immigrant earnings equation. In addition to the basic model, the model here includes a social capital variable (SOCCAP) to help explain immigrant earnings and to see whether immigrants with this capital would take less time to integrate into the Canadian mainstream than immigrants without social connections. The regression equation can be expressed as follows:

$$Y = \alpha + \beta X + \gamma_1 IMM + \gamma_2 YRIMM + \gamma_3 YRIMM^2 + \delta_1 SOCCAP + \delta_2 SCYRIMM + \varepsilon \qquad (1)$$

where Y is the natural logarithm of earnings represented by the hourly wage, and X is the vector of individual characteristics and other human capital variables that determine earnings. The list of variables used in this study and the data description are presented in Table 1. IMM is a dummy variable equal to 1 if the respondent was not born in Canada, and 0 otherwise. YRIMM is the number of years since migrating to Canada, and 0 if native born. An individual's stock of social capital (SOCCAP) is divided broadly into two areas: networks of family and friends (informal networks), and associational memberships and participation (formal networks). SCYRIMM is an interaction effect between SOCCAP and

YRIMM measuring the joint effect of social capital and an immigrant's years in Canada on the immigrant's earnings. α, β, γ_1, γ_2, γ_3, δ_1 and δ_2 are the parameters we want to estimate, while ε is a random error.

There exists a body of studies on how social capital affects various economic outcomes, for example, the effect of social capital on economic development (Helliwell, 1996), education (Helliwell and Putnam, 1999), private philanthropy (Apinunmahakul and Devlin, 2007, Brown and Ferris, 2002), and so forth. All these studies emphasize the fact that social capital generates a positive externality for the economy. This study also expects social capital to have a positive effect on earnings, (or δ_1 is expected to be positive). However, the social capital that an immigrant possesses may differ from that of a native Canadian e.g., they belong to different associations. The effect of one type of social capital may deviate from another; δ_2 hence can have either sign.

An expected earnings of a native-born Canadian can be expressed as, $E(Y / IMM = 0) = \alpha + \beta X + \delta_1 SOCCAP$, while for an immigrant it is equal to $E(Y / IMM = 1) = (\alpha + \gamma_1) + \beta X + (\gamma_2 + \delta_2 SOCCAP)YRIMM + \gamma_3 YRIMM^2 + \delta_1$SOCCAP. γ_1 is the 'entry effect' and is expected to be negative. It represents the disadvantage of being an immigrant as compared to a native born; however, the longer the immigrant lives in Canada the higher their earnings. Assume that the earnings function is concave with respect to the number of years in Canada, i.e., $\gamma_2 > 0$ and $\gamma_3 < 0$. The possible catch-up assimilation time for an immigrant is calculated as follows. An equivalence of the two expectations above yields:

$$\gamma_1 + (\gamma_2 + \delta_2 SOCCAP)YRIMM + \gamma_3 YRIMM^2 = 0 \qquad (2)$$

Note that for an immigrant without social capital, equation (2) reduces to, $\gamma_1 + \gamma_2 YRIMM + \gamma_3 YRIMM^2 = 0$, which is the basic calculation for the catch up time, i.e., the number of years required for an immigrant to catch up with the earnings of the native worker. Therefore, equation (2) can be used to compare the catch-up time of immigrants with and without social capital. If δ_2 is positive, an immigrant with a positive amount of SOCCAP would take less time to integrate into the Canadian labour market than those without this stock. I later on also divided the immigrant population into visible minorities (immigrants from

non-US and non-European countries) and non-visible minorities (immigrants from either the U.S. or Europe) so as to see how social capital fares among the ethnic groups.

The data used in this study are the 1997 National Survey of Giving, Volunteering, and Participating (NSGVP) conducted by Statistics Canada. The survey asked individuals age 15 years and older about their philanthropic behaviour between November 1, 1996 and October 31, 1997. The data file contain information on an individual's personal and household characteristics, as well as a number of questions comparable to the U.S. Social Capital Benchmark Survey (SCBS), the Canadian version of an individual Social Capital Index, therefore, is constructed using the similar method to that of the SCBS. Although the data contain 18,301 observations, only those within the age group of 15-65 and that were working during the survey period are selected, thus being left with 7,665 observations for this study[2].

Form the data description in Table 1, males, as expected, earn higher hourly wages than their female counterparts ($18 per hour as compared to $15 an hour). Slightly more than 70 percent of the population are married with one child in the household. About 17 percent of males and 16 percent of females are immigrants, with more immigrants from Asia and other countries (visible minority immigrants) than those from Europe and the U.S. (non-visible minority immigrants). The immigrants on average have lived in Canada for 3 years.

The procedure used to generate the social capital index is similar to that of the U.S. Social Capital Benchmark Survey.[3] Details are provided in Appendix 1. In sum, I gave scores to the respondent's answer to questions related to their social connections. The sum of the scores is normalized by subtracting the number with the weighted sample mean and divided by the weighted sample standard deviation. The average of the two normalized values represents an

[2] For a complete analysis of immigrants' wage convergence, it is better to use a panel or pool cross-sectional data. Since the data in this study are just one cross-sectional period, I therefore focus my analysis on the working population.

[3] See http://www.ropercenter.uconn.edu/scc_bench.html

individual's social capital index. For the entire sample, the index has a standard normal distribution with zero mean and a unity variance. It turns out that an average male has 0.03 of the social capital index higher than the population mean, while the average female has 0.03 less. But both male and female immigrants have less of this stock than their native-born counterparts.

III. Empirical Results

Table 2 presents the least-square estimation results. The dependent variable is the natural log of hourly wage. The human capital variables listed as regressors in Table 2 perform generally as expected. There are premiums for men, being married, having higher levels of education and having more work experience. Single women and women with children, not surprisingly, are at an economic disadvantage. *Ceteris paribus*, individuals living in larger cities and residing in Ontario have higher incomes.

Upon entering the country, immigrants earn significantly less than their native-born counterparts. Column (1) shows that the entry effect of being an immigrant is approximately 23 percent. When controlling for all other variables, column (1) of Table 2 shows that the crossover point between an immigrant's and the native-born's income is 16.3 years, a number that is consistent with other studies, e.g., Schaafsma and Sweetman (2001), Chiswick and Miller (1995), Hum and Simpson (2000).

Column (2) reports the regression results, which include an index for social capital (SOCCAP) and the interaction effect of social capital on the immigrant's years in Canada (SCYRIMM). The results indicate that the social capital accumulation has a significant and positive impact on earnings. A one percent increase in the individual social capital index, *ceteris paribus,* leads to a 3.5 percent increase in an hourly wage. Social capital also contributes a positive interaction effect to immigrant's years in Canada.

It is important to point out that social capital will, of course, influence the earnings of both the native and foreign born. Social capital may, for instance, influence the income of both groups equally or one more than the other. While

intergroup variations in income resulting from human capital accumulation are of interest, the variations in income within the immigrant population is the primary focus of this paper. Do immigrants with social capital fare better than immigrants without social capital, and if so, by how much?

To this end, the immigrant population are decomposed into VISIBLE and NONVISIBLE sub-groups as indicated in column (3) and (6) of Table 2. Unsurprisingly, due to language barriers and the length of time living in Canada, the visible minorities have a wider entry effect than their non-visible counterparts. For example, column (3) shows that a visible minority male worker would earn 21.5 percent less than the native male worker, but the gap is only 8.6 percent for the non-visible male. For female immigrants the entry effect is smaller (i.e., 32 percent for visible minority females compared to 28 percent of non-visible minority females, as indicated in column (6)). When dividing immigrants into two sub-groups, it turns out that SCYRIMM is slightly lower than the 90 percent level of significance in the male sample, but the variable is still statistically significant for females.

Applying equation (2) with the regression results from Table (2), Table (3) presents the catch-up time or the well-known "years since immigration" effect. Not surprisingly, it takes significantly longer for the visible minorities to catch up to the native-born earnings than the non-visible minorities. But it is noteworthy that visible minorities gain significantly more from acquiring social capital than do non-visible minorities. Among the visible minorities, comparing those with social capital to those without it, social capital tremendously reduces the time it takes to catch up with the native-born incomes: about 27.5 percent for the immigrant males and 20.1 percent for the immigrant females. In addition, social capital is more beneficial to the non-visible minority females than their male counterparts. And for the overall immigrants, social capital is also more useful for the female immigrants than the male immigrants. It then can be concluded that social capital, in particular an individual's social connections, helps immigrants with this stock to close up their earnings gap with the native income faster than those without it. It also lessens the earning gap between male and female workers, as well as among the visible and non-visible minorities.

IV. Conclusion

Previous studies have explained that the wage differences between the native born and foreign born are mainly due to immigrant's human capital formation, such as their English competence, age at immigration, level of education, and work experience.

This study constructed an individual Social Capital Index, a measure of individual social networks of families and friends, and, an individual's associational networks. The index is used to analyse how social capital influences wages amongst immigrants. The regression results suggest that individual social capital stock has a significant positive impact on earnings. Having social networks does reduce the length of time required for an immigrant to integrate into the Canadian labour market.

This study contributes to those studies on immigrant incomes in Canada by introducing a new variable that helps to explain the wage differences between the native born and the foreign born, and between visible minorities and 'white' immigrants. The findings are consistent with other studies on social capital in the sense that social capital generates positive externality for those who possess it. This study shows that social capital generates a positive economic benefit at an individual level. The findings therefore advocate public policy that enhances individual's social capital accumulation. This is particularly true for female immigrants and visible minorities.

Finally, social capital generates more economic returns for visible minorities than for the non-visible minorities, as it reduces the catch-up time of the former at a higher rate than the latter. Social capital thus reduces the time gap between the two groups. Promoting social capital accumulation among minorities, therefore, can be a solution for reducing the income gaps among ethnic groups.

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