Canadian Studies in Population, Vol. 8, 1981, pp. 49-55

SONS OF IMMIGRANTS' EARNINGS: CANADA AND THE UNITED STATES

William L. Marr
Wilfrid Laurier University, Waterloo, Ontario, Canada

Résumé — Alors que du travail a été fait sur la différence salariale entre ceux qui sont d'origine canadienne et les immigrants, cette étude examine le secteur relativement négligé de toute différence entre les files des immigrants et ceux d'origine canadienne. Utilisant les techniques de régression avec des régulations pour les variables socio-économiques qui affectent le salaire, les fils canadiens des immigrants, autrement que leurs compléments américains, ont un avantage salarial moins significant. Cependant, ils ont un avantage significatif si leurs parents sont d'origine étrangère en comparaison de ceux dont un seul parent est d'origine étrangère.

Abstract — While work has been done on the earnings difference between the Canadian-born and Immigrants, this paper examines the relatively neglected area of any difference between sons of immigrants and the Canadian-born. Using regression techniques with controls for socio-economic variables which affect earnings, Canadian sons of immigrants, unlike their U.S. counterpart, have a less significant earnings advantage although they do if both parents are foreign-born as compared to just one parent so born.

Key Words — **Canada, immigrants, sons, earnings**

Economic Problem

In a recent issue of the *American Economic Review*, Barry Chiswick examined the earnings difference between males with at least one foreign-born parent and those without; in general he found, after controlling for other variables affecting earnings besides parents' birthplace, that having at least one parent born outside of the United States increased earnings about 4.9 per cent. Because of the similarity between the history, growth, and structure of the United States and Canadian economies, it is interesting to carry out the same analysis for the latter country and to compare the two.

In Canada, while some attention has been given to the earnings of immigrants as compared with native-born, no attention to date appears to have been given to the offspring of these immigrants (Marr, Richmond). This paper looks at the effect of foreign parentage on the earnings of native-born males age 25 to 64 who worked in Canada during 1970, and makes some comparisons with Chiswick's study of the United States.

Hypothesis

Chiswick writes that having foreign-born parents may affect earnings, all else the same, because (1) migration is selective being disproportionately in favour of people with high ability or motivation, (2) the foreign-born parents may be less familiar with the social setting, and (3) the labour market discriminates in favour of or against offspring of the foreign-born. But in the analysis that follows, variables like education, experience, weeks worked, etc. are controlled for; if being an offspring of the foreign-born, for example, puts someone in a "lower" occupational group, this effect is controlled. The binary variable that represents parents' birthplace, therefore, accounts for other effects which may or may not be related to the other variables. The two that come to mind most easily are labour market discrimination and motivational factors which are inadequately compensated for in the other determinants of earnings. It is, however, impossible

to specify *a priori* whether this causes the male offspring of the foreign-born to have higher or lower earnings than the offspring of native-born; a two-tailed significance test is therefore appropriate.

Earnings are operationalized as the sum of income from wages and salaries before deductions, including military pay and allowances, tips, commissions, bonuses, piece-rate reimbursement, and net income from self-employment, in 1970; these earnings must have been positive with an upper bound of $75,000. Since Statistics Canada did not want to violate its notion of confidentiality, the Public Use Sample Tape records all incomes of $75,000 or more simply as $75,000 rather than the actual value. In order to be comparable with Chiswick's United States study, analysis is limited to males, age 25 to 64, born in Canada, who worked at least one week in 1970.

All Canadian data come from the Public Use Sample Tape, Individual File, which is generated from Canada's 1971 Census. The tape contains a one-in-a-hundred sample drawn from the one-third sample of the Census; the data, then, are a sample of a sample. In order to protect individuals identity, the small geographical areas of Prince Edward Island, Yukon and Northwest Territories are omitted from the Tape.

The Analysis

The analysis uses the human capital earnings function to estimate the percentage increase or decrease in earnings due to several factors, including parents' birthplace (Becker and Chiswick, Mincer). The estimated equation uses a linear regression of the natural log of annual earnings and ordinary least squares technique on the independent variables.

The reader should be aware that certain approximations had to be made while setting up the regressions. The Public Use Sample Tape lists schooling in categories like less than five years or university degree. This necessitated some approximations to number of years of schooling. Less than five years, for example, took a value of two and B.A. degree was given the number sixteen. The proxy for labour market experience is open to some criticism, but it has some acceptance since it has been used by other researchers. The empirical results indicate that about 30 per cent of the variation in the dependant variable is explained by the independent variables. This is about par for a study using cross-sectional data.

EDUC	Years of schooling completed
T	Labour market experience, measured as age - schooling - 5
TSQR	Experience squared
LNWW	The natural log of weeks worked
RURALEQI	Dichotomous variable equal to unity for a person living in a rural area, and zero otherwise
REGEQI	Dichotomous variable equal to unity for a person living in Ontario, Quebec, or British Columbia, and zero otherwise
NOTMSP	Dichotomous variable equal to zero for a person who is married, spouse present, and unity otherwise
PARFOR	Dichotomous variables equal to unity if either
MOFOR	parent, the mother, the father, or both parents
FAFOR	respectively, are foreign born
BOPFOR	
NONENG	Dichotomous variable equal to unity if a language other than English was spoken most frequently by the person in his home.

In order to make the Canadian results as comparable as possible to Chiswick's U.S. findings, the independent variables are defined closely to his, except REGEQI which in his study is a dichotomous variable equal to unity in the 17 southern states, including the District of Columbia, and zero for other states. Otherwise, the two sets of results are directly comparable.

Table 1 sets out the regression results for the U.S. (Chiswick, Table 2, 378) and Canada. Looking first at the "control" variables EDUC, T, TSQR, LNWW, RURALEQI, REGEQI, NOTMSP, and NONENG the Canadian results are remarkably similar to the U.S. coefficients both in magnitude and relative significance. However, note three differences:

(1) In Canada weeks worked has a less stimulating effect on earnings,
(2) In Canada living in a rural area has a more depressing effect on earnings, and
(3) In Canada earnings are depressed to a greater extent if a language other than English is spoken in the home.

Turning to the parents place of birth variables, the per cent increase in earnings from Table 1. are:

	U.S.Data	Canadian Data
PARFOR	4.986	1.490
FAFOR	7.991	0.662
MOFOR	3.806	2.680
BOPFOR	5.709	1.525

Chiswick sums up the U.S. results as follows: all else the same and compared to persons with U.S. born parents, earnings are 5 per cent higher for persons with one or both parents foreign born, 7.8 per cent higher if only the father is foreign born, 5.7 higher if both parents are foreign born and 3.8 per cent higher if only the mother is foreign born (Chiswick, 379). The Canadian results contrast sharply with the U.S. findings; the corrsponding percentages to the above are 1.49, 0.66, 1.5, and 2.68 per cent respectively. None are significantly different from zero at the 5 per cent level (two-tail test). Therefore, in contrast with the situation in the U.S., parentage in Canada has little or no effect on a person's earnings.

It may be argued that these results are incorrect since the control variables are incomplete; there is a specification error since relevant explanatory variables are omitted. In particular, Chiswick leaves out several variables which affect earnings: (1) the student status of the earner, (2) the mobility status of the person, (3) the employee's occupation, (4) full- or part-time status, and (5) wage-earner vs. self-employed person. If omitted explanatory variables are correlated with the included variable of interest here, parents' birthplace, the estimates of Table 1 are biased and inconsistent. As well, even if there is no correlation, omitting relevant variables biases upwards the estimate of the variance associated with the parameter of the birth place variable so that the usual tests of significance tend to downplay the importance of variables included in Table 1. Other independent variables which are available in the Canadian Census and fall within the human capital framework are added to those in Table 1:

ATTPT	Dichotomous variable equal to unity if the person attended any type of educational institution part-time, and zero otherwise
ATTNO	Dichotomous variable equal to unity if the person did not attend any type of educational institution full- or part-time, and zero otherwise
VC	Dichotomous variable equal to unity if the person obtained training through an apprenticeship or some other full-time vocational course, and zero otherwise
MOV	Dichotomous variable equal to unity if the person moved from one Canadian city, town, village, or municipality to another between June 1, 1966 and May 31, 1971, and zero otherwise

TABLE 1. ANALYSIS OF EARNINGS OF NATIVE BORN MALES, 25 TO 64 YEARS OF AGE, BY NATIVITY OF PARENTS, CANADA AND UNITED SRATES, 1969-1970 (DEPENDENT VARIABLE: NATURAL LOGARITHM OF EARNINGS EXPRESSED IN THOUSANDS OF DOLLARS)

Variables	U.S. (1969)	Canada (1970)	U.S. (1969)	Canada (1970)
EDUC	.06988	.05682	.06967	.05680
	(52.54)	(44.99)	(52.14)	(45.08)
T	.03062	.03069	.03065	.03066
	(21.71)	(22.57)	(21.72)	(22.54)
TSQR	-.00051	-.00053	-.00051	-.00053
	(19.74)	(23.04)	(19.75)	(23.04)
LNWW	1.13880	.8167	1.13902	.8168
	(83.82)	(88.20)	(83.33)	(88.11)
RURALEQI	-.17881	-.29355	-.17959	-.29359
	(20.54)	(34.49)	(20.60)	(34.46)
REGEQI	-.10514	.2004	-.10624	.2002
	(11.95)	(23.52)	(12.05)	(23.50)
NOTMSP	-.31885	-.28344	-.31821	-.28347
	(28.22)	(29.56)	(28.14)	(29.56)
PARFOR	.04866	.01479		
	(4.67)	(1.76)		
FAFOR			.07688	.00660
			(4.12)	(0.49)
MOFOR			.03735	.02645
			(1.49)	(1.60)
BOPFOR			.05873	.01513
			(1.80)	(1.45)
NONENG		-.09262	-.01955	-.09261
		(10.87)	(1.78)	(10.87)
Constant	-1.15892	-2.10724	-1.15346	-2.1966
Number of Observations	33878	33223	33878	33223
R^2	0.309	0.366	0.309	0.366

t-ratios in parenthesis

Note: In the second equation for the U.S., there appears to be an error in the original article since the sign of BOPFOR should be positive; this has been corrected here.

WORK	Dichotomous variable equal to unity if the person worked full-time, and zero otherwise
PROF	Dichotomous variable equal to unity if the person's occupation is in management and administration, natural sciences, engineering, mathematics, social sciences, religion, teaching, medicine and health, artistic, literary, or recreation areas, and zero otherwise
CLSA	Dichotomous variable equal to unity if the person's occupation is in clerical, sales, or services areas, and zero otherwise
BLUE	Dichotomous variable equal to unity if the person's occupation is in processing, machining, product fabricating, construction, or transport areas, or zero otherwise
WAGE	Dichotomous variable equal to unity if the person is a wage earner, and zero otherwise
PROV	Dichotomous variable equal to unity if the person resided in a different province on June 1, 1966 than on June 1, 1971

Table 2 presents the regression results for this extended model of earnings behaviour. It is clear from the t-ratios, and R2's that the additional independent variables add to the model's explanatory power. But attention focuses here in the parent's birthplace variables PARFOR, MOFOR, FAFOR, and BOPFOR and the per cent increase in earnings are:

	Canadian Data
PARFOR	2.193
FAFOR	0.887
MOFOR	2.484
BOPFOR	2.841

Other things the same, earnings are 2.19 per cent higher for persons with one or both parents foreign born. Compared to men with native born parents, earnings are higher by 0.88 per cent if only the father is foreign born, 2,8 per cent if both parents are foreign born, and 2.48 per cent if only the mother is foreign born. However, the coefficients for fathers or mothers only are insignificant. Only having both parents foreign born appears to make any difference to male earnings, all else the same.

The fact that the coefficient of PARFOR in Table 2 is greater than the one in Table 1 implies that the omitted explanatory variables of the first regression run are correlated with parents' birthplace. Since the bias is downward in Table 1 (an underestimate of the coefficient), those omitted variables which are positively related to earnings must be negatively correlated with parents' birthplace, and vice versa. This implies further from Table 2 that sons of Canadian-born parents are more likely than sons of foreign-born parents to migrate interprovincially, to work full-time, to take a vocational course, or to be a wage earner and are less likely to move between one city and another. Before these implications are accepted, however, greater disaggregations need to be done.

Conclusions

Some people may suggest that children with foreign parentage may experience labour market disadvantages such as less information about this market due to less experience and discrimination in comparison with persons with Canadian-born parents. But the results of this study do not verify this finding. Either parentage has no effect on earnings or having one or more

parents foreign-born actually increases earnings after other factors which influence earnings are controlled. Although Anthony Richmond and Ravi Verma use a different method, their results support the findings of the present paper in that both find evidence that foreign-born parentage is not a barrier to economic achievement (Richmond and Verma, 1978, 34). In comparing Canada and the U.S., parentage is far less important to earnings in the former, especially if only the father is foreign born.

Acknowledgment

The author wishes to thank Terry Levesque for helpful discussions and two referees of this journal for their useful comments.

TABLE 2. ANALYSIS OF EARNINGS OF NATIVE BORN MALES, 25 TO 64 YEARS OF AGE, BY NATIVITY OF PARENTS, CANADA, 1970 (DEPENDENT VARIABLE: NATURAL LOGARITHM OF EARNINGS EXPRESSED IN THOUSANDS OF DOLLARS)

Variables	Regression 1	Regresssion 2	Variables	Regression 1	Regression 2
EDUC	.04542	.04539	WORK	.3971	.3971
	(31.99)	(31.96)		(25.95)	(25.95)
T	.02966	.02956	PROF	.3096	.3096
	(21.81)	(21.74)		(23.45)	(23.45)
TSQR	-.00050	-.00050	CLSA	.03856	.03856
	(21.74)	(21.74)		(3.71)	(3.71)
LNWW	.7322	.7321	BLUE	.1245	.1246
	(76.75)	(76.74)		(12.97)	(12.97)
RURALEQI	-.22650	-.22639	WAGE	.1803	.1805
	(26.03)	(25.99)		(17.50)	(17.52)
NOTMSP	-.25473	-.25478	PROV	.04260	.04248
	(27.10)	(27.10)		(2.46)	(2.46)
NONENG	-.09020	-.09004	PARFOR	.02169	
	(10.85)	(10.84)		(2.67)	
REGEQI	.1851	.1852	MOFOR		.02454
	(22.27)	(22.26)			(1.53)
ATTPT	.2787	.2793	FAFOR		.00883
	(8.47)	(8.49)			(0.59)
ATTNO	.3460	.3465	BOPFOR		.02801
	(11.65)	(11.67)			(2.77)
VC	0.3405	0.3394	Constant	-2.746	-2.745
	(3.74)	(3.73)	Number of Observations	33223	33223
MOV	-.01695	-.01681	R^2	0.402	0.402
	(1.86)	(1.84)			

t-ratios in parenthesis

References

Becker, Gary S. and Barry R. Chiswick. 1966. Education and the Distribution of Earnings. American Economic Review Proceedings 66:358-69.

Canada. 1971 Census of Canada. Public Use Sample Tapes.

Chiswick, Barry R. 1977. Sons of Immigrants: Are They at an Earnings Disadvantage? American Economic Review Proceedings 67:376-80.

_____, Errata. 1977. Sons of Immigrants: Are They at an Earnings Disadvantage? American Economic Review 67:775.

Marr, William L. 1976. Labour Market and Other Implications of Immigration Policy for Ontario. Toronto: Ontario Economic Council.

Mincer, Jacob. 1974. Education, Experience and the Distribution of Earnings and Employment: An Overview. In Thomas F. Juster, (ed.), Education, Income, and Human Behavior. New York: McGraw-Hill.

Richmond, Anthony H. 1974. Aspects of the Absorption and Adaptation of Immigrants. Ottawa: Supply and Services.

Richmond, Anthony H. and R. P. Verma. 1978. Income Inequality in Canada: Ethnic and Generational Aspects. Canadian Studies in Population 5:25-36.

Received October, 1978; Revised December, 1981.