Globalization and Earnings Among Native-Born and Immigrant Populations of Racial and Ethnic Groups in Canada

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Abstract

This is the first statistical analysis to understand how economic globalization affects earnings of native-born and immigrant populations with different racial and ethnic backgrounds in Canada. Draw on four measures of economic globalization: number of non-resident workers in CMAs, number of companies with foreign investment, size of financial industry, and volume of equity trading, our study finds that the effects of economic globalization on individual earnings is influenced by the particular aspect of economic globalization and the group being considered. Specifically, economic globalization is beneficial to native-born members of visible minority groups and is very sensitive to their immigrant members.

Key Words: Economic globalization, visible minorities, immigrants, earnings

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Résumé:

Il s'agit de la première analyse statistique visant à comprendre les incidences de la mondialisation économique sur les gains des populations nées au pays et à l'étranger et de race et d'origine différente au Canada. L'étude repose sur quatre mesures de mondialisation économique : le nombre de travailleurs non residents dans les RMR, le nombre d'enterprises ayant des investissements étrangers, l'importance de l'industrie financière et le volume des actions négociées. Les auteurs de l'étude constatent que les incidences de la mondialisation économique sur les gains personnels sont tributaries de l'aspect particulier de la mondialisation économique et du groupe étudié. Tout particulièrement, la mondialisation économique profite aux membres de groupes de minorités visibles nés au payus et est trés sensible aux immigrants de ces groupes.

Mots clés: mondialisation économique, minorités visibles, immigrants, gains

Introduction

The massive protest during the economic summits of the Americas in Seattle in 1999 and in Quebec City in earlier 2001 has generated considerable media attention on globalization. The vivid picture of huge fences and massive police presence are clearly imprinted on the minds of many. Between the protesters and the government officials, however, two drastically different and contrasting views on the economic consequences of globalization are portrayed. For many protesters, globalization brings vicious economic consequences to society. Among these unwanted consequences, economic deterioration and poverty are major concerns. However, government officials paint an opposite picture. They assert that globalization efficiently allocates resources and creates jobs for local communities. One of the topics of heated debates is the impact of economic globalization on earnings, including the earning potential of various groups in society, such as racial and ethnic groups as well as native-born and immigrant populations.

This discussion is not only important to the public, but also provides an opportunity to link the literature on globalization, immigration, urban sociology, race and ethnicity, and to expand the theoretical discussion to the larger globalization context that is unfolding in front of us. The discussion also has

significant policy implications. Deteriorating wages and salaries or widening gaps among groups can substantially affect social stability.

Despite the significance of the topic, few researchers have attempted a statistical analysis of the relationship between economic globalization and the earnings of racial and ethnic groups as well as native-born and immigrant populations. Drawing from the literature on globalization, we identify three aspects of economic globalization, and in the study we will differentiate their relative effects. We aim to contribute to the literature in the following ways. First, instead of offering a general discussion of the effect of economic globalization on earnings, we attempt to delineate several aspects of economic globalization and discuss their effects on the individual earnings. Second, we address the relationship of economic globalization and the earnings of various groups, including racial and ethnic groups, and native-born and immigrant groups. The separate analysis of these groups provides a more comprehensive perspective on the issue of globalization and its effects on the earnings of immigrant and native-born groups by racial/ethnic characteristics.

Literature Review

The exponential growth of literature on globalization, without doubt, has expanded the understanding of its political (Rosenau 1997; Sassen 1996; Held 1995; Walker 1993), social (Ong 1999; Sassen 1991; Lin 1998; Kotkin 1992), cultural (Watson 1997; Ritzer 1993; McLuhan and Powers 1989), and economic processes as well as its consequences (Stalker 2000; Sassen 1991; Jonathan and McCulloch 1991). In this paper, we choose to focus on economic globalization because it is impossible to discuss the effects of all aspects of globalization, such as social and political aspects, on earnings in the length of one paper. We hope to discuss economic globalization in detail and carefully delineate its relationship to earnings.

Despite there are diverse and sometimes conflicting discussions about economic globalization in cities, three major elements are commonly identified in the vast literature (Sassen 1991; Knox and Taylor 1995; Sassen 1996): the increase in the presence of global production networks, augmentation of global financial activities, and growth of international capital. These three elements are neither mutually exclusive nor exhaustive; they simply highlight important aspects of the field and provide a rough road map for discussion.

The increase in the Presence of Global Production Networks

A salient indicator of the presence of global production networks is the increase in multinational corporations in major cities (Sassen 1988). These multinational corporations are important to world trade. By opening offices in different countries, or through direct foreign investment, they control local subsidiaries that stretch their economic activities beyond national boundaries and establish extensive economic global networks (Stalker 2000). Such scale of operation has enormous impact on both international and local markets. It is estimated that about two-thirds of world trade in general, and 80% of specific technology, research, and development in world trade, are generated by or associated with these multinational corporations (Held, et.al.1999).

More multinational corporations in a city are not necessarily an advantage to the earnings of local residents. Multinational corporations usually send expatriates to branches and subsidiaries in other countries. These expatriates usually take the top management positions and are responsible for maintaining contact with the central offices in the home countries (Stalker 2000). The decreased opportunity for promotion to higher levels may affect the earnings of local residents.

In addition, the presence of multinational corporations through investment in local companies can hurt the bargaining power of workers (Abowd and Lemieux 1991). Realizing the fluidity of capital of these companies, which extends the local labour market to a global context, workers have to face the constant threat of jobs being outsourced to other locations and local operations being downsized (Thygesen, Kosai and Lawrence 1996). The restrained power of local government to regulate the relationship between these companies and workers, because of their transnational nature, further hampers the bargaining power of workers, and so their earnings suffer.

The presence of companies with foreign investment can negatively affect earnings of immigrants more than native-born population. Companies with foreign investment are more likely to hire local residents who are familiar with local languages and customs and who can relate well to local officials and workers, if they need to hire staff (Stalker 2000). Given such job requirements, it will be less desirable for them to hire immigrants.

Augmentation of Global Financial Activities

Economic globalization also significantly changes the structure of local labour markets. Banking, finance, and business industries have expanded dramatically in recent years to meet the needs of the increased flow of international capital due to the emergence and consolidation of the global financial market (Held et.

al. 1999). Qualified individuals working in the financial industry are particularly sought after as the industry expands. Because of the demand, their human capital is highly valued. The earnings of such individuals, even immigrants, will benefit greatly. With the expansion of high paying jobs at the top of the occupational ladder, many low paying jobs are created as well in supporting services. The jobs that most native-born workers reject provide opportunities for immigrants who otherwise may work in ethnic economy with fewer economic returns. Thus, the increased proportion of financial services in the local market benefits the earnings of individuals, especially immigrants.

Growth of International Capital

Another important element of globalization is the increasing significance of international capital in the city (Held et. al. 1999). A reflection of these activities can be found in the local equities market. As local stock exchanges become more accessible to global investors, including institutional and individual investors, through advanced technologies such as the Internet, the value of domestic equities are more likely to be held by foreign investors (Held et. al. 1999). At the same time, foreign companies increasingly seek listings on major stock exchanges, further enhancing the flow of international capital in the local market. Subsequently, the cross border flow of capital has increased exponentially in the last decade as investors diversify their investment portfolios. With increased international bank lending, and a dramatic increase in the global trade of currencies, currency futures, and a wide variety of "derivative" instruments, local city finance becomes tightly connected to larger international financial networks. Studies (Clark and O'Connor 1997, Sassen 1999) have shown that international capital is no longer concentrated in only a few major cities. In fact, cities are in intense competition to attract this global capital. The volume of global capital flow varies among cities (Wekerle and Peake 1996).

Although individual investments may benefit from international diversification, the direct effect of the volume of international capital flow on individual earnings in the city is not obvious. Some writers argue that the flow of international capital facilitate the efficiency of capital allocation (Stalker 2000; Thygesen, Kosai and Lawrence 1996). Resources, products, and currencies are constantly re-evaluated to shift from less profitable to more profitable locations. Financial capital is attracted to places in need, creates investment opportunities there, and influences local social and economic development. However, some suggest that higher volume of international capital flow is related to higher unemployment and lower individual earnings in the city (Block 1996). The high level of capital mobility in the global financial market creates a situation in

which countries have limited choice but to align interest rates with those of the large economy with the highest interest rates. Countries not following this strategy may risk considerable capital outflow and intense speculative pressure on their currencies. Higher interest rates tend to weaken local demand through slower sales growth, and reduced business cash flow, and business investment. Subsequently, employment prospects and earnings will be affected.

Race and Ethnic Differences

To complicate the discussion, not only do the three aspects of economic globalization affect native-born and foreign-born populations in different ways, but their effects on the earnings of the native-born and foreign-born populations of various racial and ethnic groups also can be different. Among the studies about the earnings of racial and ethnic groups in Canada, the classic work by Porter (1965) succinctly portrays an economic hierarchy of racial and ethnic groups in Canadian society. The findings in general are supported by subsequent studies (Boyd 1992; Hum and Simpson 1999; Pendakur and Pendakur 1998; Piche, Renaud and Gingras 1999; DeSilva 1997; Grant and Oertel 1998; Green 1999). Most studies confirm that the charter groups as well as Northern and Western Europeans have relative advantages over other ethnic groups; Eastern Europeans are located in the middle; South Europeans, Asians, and Blacks are at the bottom of the Canadian economic and political hierarchy (Porter 1965; Hamilton 1996; Helmes-Hayes and Curtis 1998). Given the diverse positions of racial and ethnic groups in the economic hierarchy of Canada, we expect that the effects of economic globalization on their earnings will be varied.

Specifically, we expect that native-born members of visible minority groups will be more likely to benefit from economic globalization. Growing up in Canada suggests that they have familiarity with the local market. At the same time, most of their family members are immigrants who arrived in recent decades and still maintain contact with their home countries. Consequently, they have an advantageous position in the global economy. We expect that the earnings of their immigrant counterparts will be sensitive to economic globalization. On the one hand, multinational companies are more likely to hire native-born workers who can help their local management. Immigrants, especially visible minorities, are less likely to benefit from the presence of multinational companies. On the other hand, a large proportion of visible minority immigrants arrived in the country in recent decades. They still retain their transnational linkages with their home countries, which suggests that they may be able to benefit from foreign investment. In the following sections, we use Canadian data to study the effects of economic globalization on the earnings of immigrant and native-born populations of various racial and ethnic groups.

Data and Methods

The major source of data is the 1996 Canadian Census Public Use Microdata Individual File (PUMF). We selected those who are between age 18 and age 65 to represent the age group most active in the labour market. PUMF has several advantages in estimating the effects of economic globalization on individual earnings. PUMF identifies the CMA in which each individual resides. In addition, the extensive information on the demographic, social, and economic characteristics, and immigrant status of individuals enables us to carry out multivariate analysis to delineate the relative effects of economic aspects of globalization on individual earnings while controlling for these factors.

In this study, we include eight major Census Metropolitan Areas (CMAs): Toronto, Vancouver, Montreal, Ottawa, Winnipeg, Edmonton, Calgary and Hamilton. These areas are selected because they are the largest cities in Canada. We did not include Quebec City even though its population is large, because the homogenous population composition there does not allow us to make sensible comparison of racial and ethnic groups as well as native-born and immigrant groups. Second, these cities include large proportion, about 75%, of the immigrants in Canada, with substantial variation among them[1]. Finally, these cities have substantial variations in economic globalization. Such variations are ideal to study the effects of the economic aspects of globalization on earnings.

One of the objectives of this research is to compare the different effects of economic globalization on the earnings of the native-born and immigrant populations as well as various racial and ethnic groups. Immigration information was captured by a set of dummy variables regarding period of immigration. Race and ethnicity are identified directly from the census question. In this study, we only selected those ethnic groups which fall into six major categories: the charter groups (i.e. British and French), Western and Northern Europeans, Eastern Europeans, Southern Europeans, Asians, and Blacks. About 106,553 cases were selected[2]. We did not focus on individual ethnic groups, such as German or Portuguese, because the interpretation of results would be very complicated if a large number of specific groups were included. Europeans are categorized according to the geographic locations of their ethnic origins because research in Canada suggests that the labour market experiences of ethnic groups from the same geographic regions are similar (Li 1988; Reitz 1990)

The dependent variable in this study is the logarithm of earnings of the respondents. The earning variable is constructed by adding the wages and salaries of the respondents before taxes and the self-employment income received from farm and/or non-farm self-employment in 1995. Those whose

Table 1
Definition and Measurement of Variables

DEPENDENT VARIABLE	
Earning (log)	log (Wage and Salaries + Self-Employed Income)

INDEPENDENT VARIABLES	
Economic Globalization	
Number of Non-resident workers	number of non-resident workers in CMA
Companies with Foreign Investment	number of companies with foreign stock holdings in CMA
Proportion of Financial Industry	proportion of financial industry in CMA
Equity Trading	volume of equity trading in CMAs, in 100 millions
Demographic Characteristics	
Age	Age of the respondents, by year
Gender	Female=1; Male=0
Socioeconomic Characteristics	
Completed University	1= university degree or higher; 0=less than university degree
Working Experience	Age – Total years of Schooling
Paid Worker	1=paid workers; 0=self-employed
Knowledge of Any Non-official Language	1=knowledge of any non-official language; 0=not knowing any non-official language
Immigration Status	
Immigrated before1967	immigrated to Canada before 1967=1; others=0
Immigrated between 67-77	immigrated to Canada between 1967 and 1977=1; others=0
Immigrated between 78-83	immigrated to Canada between 1978 and 1983=1; others=0
Immigrated between 84-90	immigrated to Canada between 1984 and 1990=1; others=0
Immigrated between 91-96	immigrated to Canada between 1991 and 1996=1; others=0
native-born	omitted category
Group Differences	
Charter Groups	British and French (Single origin), British and French, French only (Multiple origins); others=0
Northern and western Europeans	1=Dutch, German, and Other Western European origins; others=0
East Europeans	1=Hungarian, Polish, Ukrainian, and Balkan origins; others=0
South Europeans	1=Greek, Italian, Portuguese, and Spanish; others=0
Asians	1=Chinese, Filipino, Vietnamese, South Asians, Other East and Southeast Asian origins; others=0
Blacks	African origin and Caribbean origin who choose "Black" as their visible minority status, others=0

earnings are less than zero are excluded from the analysis. We did not use the information on total income because it includes various types of governmental benefits, whose main purpose is to progressively redistribute economic resources through government programs. If total income were used, government benefits would minimize the effect of economic globalization on individual earnings based on their labour market performance.

We created four indicators to measure economic globalization: number of non-resident workers in CMA, number of companies with foreign capital in CMA, size of financial industry in CMA, and volume of equity trading in CMA. These four indicators are intended to capture the three aspects of economic corporations which usually extend their activities through direct investment to local companies or by opening subsidiaries in another country. Although the variable captures only the largest 500 companies, and firms of smaller size are not included, we believe that the variable is a conservative estimate of the number of corporations with foreign investment. Firms with smaller revenue and assets are less likely to attract foreign investment. Size of the financial industry in CMA is captured by the proportion of employment in the financial industry. The data is drawn from the 20% sample of the 1996 Canadian Census (Census of Canada, 1996 Dimension series, 94F0006XCB). The variable on the volume of equity trading is based on the volume of equity trade in 1996 in five stock exchange markets, i.e., Toronto, Montreal, Vancouver, Alberta (Calgary), and Winnipeg (Toronto Stock Exchange 1996). When a CMA does not have stock exchange, as is the case in Edmonton, Ottawa, and Hamilton, their volume of equity trading is set to zero. This variable provides a rough approximation of the flow of international capital. We acknowledge that the volume of equity trading also includes the trading of local capital. However, as more financial service providers encourage both individual and institutional investors to diversify their investments and offer services to international investment, we believe that a considerable proportion of equity trading is from foreign countries. Nevertheless, we interpret the results with caution.

To fully evaluate the effects of the economic aspects of globalization on individual earnings, we control the demographic and socio-economic background of the respondents. Individual sociodemographic characteristics include respondent's age and gender. This information is directly obtained from the census question. We coded female respondents as 1 for the gender variable. Age and gender is an important variable to determine earnings because previous studies on earning suggest that older males are more likely to attain a higher level of income (Bibb and Form 1977; Boyd 1992; Hum and Simpson 1999; Piche, Jean and Gingras 1999).

The set of socioeconomic characteristics consists of four dummy variables: education, work experience, class of work, and knowledge of any non-official language. Education is a dummy variable with a value of 1 indicating the completion of university education. Work experience is approximated by age minus total years of school. Since previous studies suggest a curvilinear effect between working experience and earnings, we include a square term of the variable in the model. According to the human capital theory, more job experience will have positive effects on individual earnings (Becker 1993). Paid Worker is a dummy variable so that the value of 1 includes paid workers in contrast to self-employed. Studies suggest that self-employed workers usually earn more than paid workers (Sanders and Nee 1987). Finally, knowledge of any non-official language is a dummy variable with a value of 1 to indicate knowing any non-official language. Individuals knowing any non-official language may improve their earnings by utilizing their ethnic networks or superior market knowledge of their country of origin if the local market has a higher level of economic globalization (Head 1998).

Results

To fully evaluate the impact of economic globalization on earnings, we performed a series of nested regression analyses. We focused on the four indicators of economic globalization in the first model. We added two demographic variables in the second model. In the third model, we further controlled socio-economic backgrounds. In the fourth model, we also considered the immigration effect. In the fifth model, we included all four indicators of economic globalization, demographic, socio-economic, immigration, and ethnic background.[3]

The first model included only the four indicators of economic globalization. The results reported in Table 2 show that all four indicators of economic globalization are related to earnings. The more non-residents workers and companies with foreign capital, the lower the individual earnings. As suggested, more expatriates from other countries working in these major cities may limit the opportunities of native-born Canadians and immigrants to be promoted to administrative and managerial positions. The filtering down process in the occupational hierarchy in turn may lower earnings. As well, the presence of more companies with foreign investment slightly lowering the earnings of individuals may suggest that companies with foreign investments have limited local commitment and tend to outsource jobs to other locations in order to lower labour costs, which considerably shrinks the bargaining power of workers. In turn, individual earnings might be affected. Yet, all of these effects are minor.

Table 2

Regression Analyses of Log Earnings on Levels of Economic Globalization

Controlling for Various Factors, 1996

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Economic Globalization					
Number of Non-resident workers	-0.001 ***	-0.001 ***	-0.001 ***	0.000 *	0.000 *
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Companies with Foreign Investment	-0.003 *	-0.003 *	-0.005 ***	-0.008 ***	-0.008 ***
	-0.001	-0.001	-0.001	-0.001	-0.001
Proportion of Financial Industry	0.023 **	0.026 ***	0.02 **	0.051 ***	0.052 ***
	-0.007	-0.007	-0.007	-0.007	-0.007
Equity Trading	0.002 ***	0.002 ***	0.002 ***	0.003 ***	0.003 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Demographic Characteristics					
Age		0.029 ***	0.101 ***	0.087 ***	0.092 ***
		-0.001	-0.004	-0.004	-0.004
Gender		-0.429 ***	-0.455 ***	-0.448 ***	-0.442 ***
		-0.018	-0.017	-0.017	-0.017
Socioeconomic Characteristics					
Paid Worker			0.926 ***	0.947 ***	0.956 ***
			-0.034	-0.034	-0.033
Completed University			0.358 ***	0.395 ***	0.388 ***
			-0.025	-0.024	-0.024
Working Experience			0.038 ***	0.059 ***	0.052 ***
			-0.005	-0.005	-0.005
(Working Experience)2			-0.002 ***	-0.002 ***	-0.002 ***
			(0.000)	(0.000)	(0.000)
Knowledge of Any Non-official Languages			-0.501 ***	-0.176 ***	-0.238 ***
			-0.018	-0.021	-0.029
Immigration Status					
Immigrated before 1967				0.092 **	0.092 **
				-0.035	-0.036
Immigrated between 1967-77				-0.042	0.114 ***
				-0.029	-0.031
Immigrated between 1978-83				-0.184 ***	0.033
				-0.040	-0.043
Immigrated between 1984-90				-0.512 ***	-0.278 ***
				-0.036	-0.039
Immigrated between 1991-96				-1.731 ***	-1.472 ***
				-0.035	-0.040
Native Born					
Group Differences				o.c.	o.c.
Charter Groups					0.629 ***
					-0.048
Northern and Western Europeans					0.748 ***
					-0.058
East Europeans					0.560 ***
					-0.056
South Europeans					0.757 ***
					-0.053
Asians					0.415 ***
					-0.049
Blacks					o.c.
Intercept	2.185 ***	1.202 ***	-1.734 ***	-1.949 ***	-2.652 ***
	-0.098	-0.102	-0.116	-0.115	-0.124
N	106553	106553	106553	106553	106553
d.f.	4	6	11	16	21
R2	0.001 ***	0.021 ***	0.067 ***	0.09 ***	0.092 ***

Source: 1996 PUMS Individual File. Notes: * p<.05 ** p=<.01*** p<=.001; o.c.= omitted category

However, the results demonstrate a positive effect of economic globalization when the financial sector expands and the volume of equity trading increases. A large financial sector generates significant demand for those who have educational credentials and skills, and it creates supportive service jobs that require little skill. The employment opportunities and earnings of most people will be substantially improved. Although a larger volume of equity trade usually is associated with a higher flow of international capital and may facilitate local social and economic development, the effect on individual earnings is minimal.

We added demographic variables in the second model and socio-demographic characteristics in the third model. The effects of various aspects of economic globalization in the two models are almost identical to the first model after controlling for demographic factors. This finding suggests that neither demographic nor socio-demographic variables affect the relationship between economic globalization and earnings. The results also show that the individuals with higher earnings usually are older, male, and Canadian born with university education and working experience. These results are consistent with the previous findings of individual earning attainment (Boyd 1992; DeSilva 1997; Pendakur and Pendakur 1998). However, we also found those who do not know any non-official language and are employees are more likely to have higher earnings, contrary to our expectation.

The fourth model further controls immigration status. The native-born population is the contrast category of a set of dummy variables to compare with immigrants who arrived in different periods. The effect of non-resident workers then has virtually no effect on individual earnings. This finding suggests that immigrants are in an unfavourable position to compete in the labour market with the high proportion of non-residents who are most likely expatriates sent by multinational corporations. The number of companies with foreign capital and the larger financial sector in the city continue to be strong, while the effect of volume of stock trading remains weak. Sets of variables indicating immigration periods show that the most recent immigrants fare worst in the labor market. However, those who immigrated before 1967 has a higher earning compared to native-borns, which confirms the convergence of earning attainment among immigrants (Pendakur and Pendakur 1998).

The final model includes ethnicity. We used Blacks as the reference group in the analysis. Research has well documented that Blacks experience discrimination in the labour force that considerably affects their earnings(Boyd 1992; Hum and Simpson 1999; Piche, Jean, and Gingras 1999). Results suggest that effects of the various aspects of economic globalization on earnings remain the same. The statistical significance of all ethnic variables indicates that the

ethnicity of individuals is critical to their earnings. Our results largely confirm the previous findings of an economic hierarchy of racial and ethnic groups in Canadian society, suggesting that Blacks have the lowest earnings and Asians the second lowest, East Europeans are located in the middle, while the charter groups, Northern and Western Europeans, as well as South Europeans enjoy relative earning advantages, even after controlling for sets of demographic, socioeconomic, and immigrant status characteristics within the population.

In short, the series of nested regression analyses show that all four indicators of economic globalization are related to earnings. Among them, the presence of companies with foreign capital is negatively related to individual earnings, and the effect of a larger financial sector is positive. In addition, both these variables are the strongest of the four indicators, whereas the effect of the volume of equity trading is minimal, the effect for the non-resident workers in the city is diminished after controlling for individual and ethnic factors.

In the next section we go one step further to examine how levels of economic globalization are related to the native-born and immigrant population. We ran the model for native-born and immigrants separately. Variables included in the model in this analysis are similar to the fifth model in the previous analysis. We included four indicators of levels of economic globalization, demographic, socio-economic, immigration status and ethnicity. For the native-born model, the set of variables that indicate immigration status are excluded.

Results reported in Table 3 show that the direction of the effects of the four indicators of economic globalization on earnings are the same for native-born and immigrant populations. However, the results reveal differences in the relative importance of these effects for native-born and immigrant populations. For example, although the number of non-resident workers in the city has no effect on the earnings of the native-born population, it does statistically relate to the earnings of immigrants with a small effect.

In addition, earnings of immigrants as compared to native-born tend to be more strongly influenced by the number of companies with foreign capital, a larger financial sector, and a larger volume of trade in the city. The presence of companies with foreign capital suggests that these companies are less likely to recruit immigrants because they prefer to hire people who know the local culture and language well and can thereby help them to deal with local government and local affairs. Given fewer employment opportunities, the earnings of immigrants are more likely to be affected. Conversely, a larger financial sector in the city may enable both skilled and unskilled immigrants, who may otherwise have difficulty obtaining jobs or career advancement, to benefit from

Table 3

Regression Analyses of Log Earnings on Levels of Economic Globalization

Controlling for Various Factors By Nativity, 1996

Variables	Native Born	Foreign Born
Economic Globalization		
Number of Non-resident workers	0.000	-0.001 ***
	0.000	0.000
Companies with Foreign Investment	-0.008 ***	-0.010 ***
	-0.001	-0.002
Proportion of Financial Industry	0.045 ***	0.072 ***
	-0.008	-0.013
Equity Trading	0.002 ***	0.004 ***
	0.000	-0.001
Demographic Characteristics		
Age	0.142 ***	0.049 ***
	-0.005	-0.006
Gender	-0.450 ***	-0.458 ***
	-0.021	-0.029
Socioeconomic Characteristics		
Paid Worker	0.983 ***	0.922 ***
	-0.041	-0.055
Completed University	0.289 ***	0.416 ***
	-0.030	-0.041
Working Experience	0.012 *	0.081 ***
	-0.006	-0.008
(Working Experience) ^{2}	-0.002 ***	-0.002 ***
	0.000	0.000
Knowledge of Any Non-official Languages	-0.172 ***	-0.292 ***
	-0.036	-0.052
Immigration Status		
Immigrated before 1967		1.645 ***
		-0.058
Immigrated between 1967-77		1.642 ***
		-0.046
Immigrated between 1978-83		1.518 ***
		-0.052
Immigrated between 1984-90		1.200 ***
		-0.047
Immigrated between 1991-96	.	o.c.
Group Differences		
Charter Groups	0.934 ***	0.642 ***
	-0.120	-0.064
Northern and Western Europeans	1.064 ***	0.734 ***
	-0.126	-0.088
East Europeans	0.979 ***	0.432 ***
	-0.126	-0.077
South Europeans	1.037 ***	0.644 ***
	-0.124	-0.072
Asians	0.687 ***	0.405 ***
	-0.131	-0.062
Blacks	o.c.	o.c.
Intercept	-3.763 ***	-3.380 ***
	-0.181	-0.216
N	61106.000	45447.000
d.f.	16.000	20.000
R^2	0.086 ***	0.093 ***

Source= 1996 PUMS Individual File. Notes: * p<.05 ** p=<.01*** p<=.001 o.c.=omitted category

the high demand of the financial sector and the creation of related support service jobs. Finally, a larger volume of trade suggests that more international capital is being channelled to the local market, which may disproportionately benefit immigrants.

Table 4 takes a further look at the varying effects of globalization on native-born and foreign-born of different racial and ethnic groups. We included the same set of variables as in the models of Table 3 analyzing native-born and immigrant populations. However, we separate three racial and ethnic groups. These groups are Charter groups, European groups, and visible minority groups. Charter groups include British and French. European groups include Northern, Western, Eastern, and Southern Europeans. Visible minority groups include Asians and Blacks. We combined six groups into three groups because of the limited number of cases for native-born and immigrant members in some groups.

The results further confirm that there are differences in how economic globalization affects racial and ethnic groups as well as nativity status. Differences in the effects of economic globalization are unique for the native-born members of visible minority groups. Companies with foreign capital investments negatively affect earnings of native-born members of the charter groups and European groups, and volume of equity trading is positively related to their earnings. Neither factor is significant to the earnings of native-born members of visible minority groups. While earnings of all native-born groups are positively influenced by the size of the financial sector, the factor is particularly strong for the earnings of native-born members of visible minority status.

In short, the effects of economic globalization can positively or negatively affect the earnings of native-born Charter and European groups, but the effects are only positive on the earnings of visible minority counterparts. Native-born visible minority members, most of whose family members still maintain transnational linkage to their home countries because of their recent arrival. In addition, they also have knowledge in Canadian local economies as native-born population. This familiarity in both Canadian economy as well as economy in the country of origin may provide them with structural advantages in the globalized local labor markets.

For immigrants, a different picture emerges. Earnings of visible minority groups are very sensitive to economic globalization. While immigrants who are members of visible minority groups are negatively influenced by the size of the non-resident workers, the earnings of immigrants from the Charter and European groups do not relate to it. Since multinational companies are more likely to hire native-born workers who can help them in local management,

Table 4
Regression Analyses of Log Earnings on Levels of Economic Globalization
Controlling for Various Factors By Nativity and Racial/Ethnic Groups, 1996

Variables	Charter Groups	Europeans	Visible Minorities	Charter Groups	European	Visible Minority
Economic Globalization						
Number of Non-resident workers	0.000	0.000	0.000	0.000	-0.001	-0.002 ***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Companies with Foreign Investment	-0.007 ***	-0.011 ***	-0.014	-0.010 *	-0.009 *	-0.016 ***
	(0.002)	(0.003)	(0.009)	(0.004)	(0.004	(0.003)
Proportion of Financial Industry	0.037 ***	0.080 ***	0.110 *	0.065 **	0.000	0.132 ***
	(0.010)	(0.019)	(0.051)	(0.024)	(0.024)	(0.020)
Equity Trading	0.002 ***	0.003 ***	0.003	0.003 *	0.004 **	0.005 ***
	(0.000)	(0.001)	(0.003)	(0.001)	(0.001)	(0.001)
Demographic Characteristics						
Age	0.136 ***	0.157 ***	0.221 ***	0.084 ***	0.028 ***	0.055 ***
	(0.006)	(0.011)	(0.029)	(0.014)	(0.008)	(0.008)
Gender	-0.479 ***	-0.411 ***	-0.173	-0.671 ***	-0.656 ***	-0.277 ***
	(0.024)	(0.042)	(0.106)	(0.055)	(0.050)	(0.042)
Socioeconomic Characteristics						
Paid Worker	0.983 ***	0.954 ***	1.137 ***	1.097 ***	0.913 ***	0.873 ***
	(0.048)	(0.086)	(0.271)	(0.099)	(0.088)	(0.088)
Completed University	0.315 ***	0.210 ***	0.127	0.272 ***	0.471 ***	0.423 ***
	(0.036)	(0.062)	(0.146)	(0.080)	(0.083)	(0.058)
Working Experience	0.007	0.006	0.050	0.078 ***	0.092 ***	0.080 ***
	(0.007)	(0.013)	(0.033)	(0.018)	(0.013)	(0.011)
(Working Experience) ^{2}	-0.002 ***	-0.002 ***	-0.004 ***	-0.003 ***	-0.002 ***	-0.002 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Knowledge of Any Non-official Languages	-0.297 ***	-0.089 *	0.033	-0.419 ***	-0.191	-0.075
	(0.066)	(0.045)	(0.110)	(0.104)	(0.112)	(0.060)
Immigration Status						
Immigrated before 1967				0.825 ***	1.785 ***	1.674 ***
				(0.125)	(0.100)	(0.137)
Immigrated between 1967-77				0.798 ***	1.675 ***	1.763 ***
				(0.118)	(0.096)	(0.061)
Immigrated between 1978-83				0.793 ***	1.525 ***	1.599 ***
				(0.133)	(0.121)	(0.066)
Immigrated between 1984-90				0.633 ***	1.166 ***	1.259 ***
				(0.140)	(0.107)	(0.058)
Immigrated between 1991-96				o.c.	o.c.	o.c.
Intercept	-2.509 ***	-3.405 ***	-6.404 ***	-2.928 ***	-1.930 ***	-4.152 ***
	(0.166)	(0.299)	(0.847)	(0.413)	(0.393)	(0.323)
N	43344	15010	2752	7220	14130	24097
d.f.	11	11	11	15	15	15
R^2	0.079 ***	0.081 ***	0.152 ***	0.093 ***	0.069 ***	0.085 ***

Source: 1996 PUMS Individual File. Notes: * p<.05 ** p=<.01*** p<=.001; o.c.= omitted category

immigrants, especially visible minorities, might be least likely to benefit from the presence of these multinational companies.

In addition, a larger number of companies with foreign investment negatively affects the earning of all three groups of immigrants. The effect is much stronger for visible minorities than for the other two groups. Whereas, the size of financial industry is strongly and positively related to earnings of visible minority immigrants. The results suggest that visible minority immigrants, like their native-born counterparts, are better able to take advantage of the expansion of financial sector to improve their earnings than are their Charter group and European group counterparts. Finally, larger volumes in equity trading relate positively to the earnings to all three groups, especially visible minorities.

Simulation

To appreciate the effect of economic globalization on various racial and ethnic groups as well as native-born and immigrant population, we calculated the estimated earnings of various levels of economic globalization based on the results of Table 4. We created six scenarios for each group with the variation of number of companies with foreign capital, size of financial sector, and trading volume. To understand the effects of economic globalization on the earnings of each group, we applied the means of each specific group to calculate their individual characteristics.

Results from the simulation clearly show that a high level of economic globalization in a city benefits all racial and ethnic groups. For native-born members of visible minorities with university education living in cities with a small number of companies with foreign investment, a small financial sector, and a low trading volume, earnings are $16,660. Group with the same background living in cities with a high number of companies with foreign investment, a large financial sector, and a high trading volume, have earnings of $215,078, almost thirteen times more. Similarly, the earnings of Charter groups and Europeans with university education increase substantially from $22,109 and $25,053 in cities with low levels of economic globalization to $61,744 and $198,145 in cites with high levels of economic globalization respectively. The same pattern also shows clearly among immigrants of all groups.

In addition, the results demonstrate a greater earnings gain for immigrants than for the native-born population. For example, native-born members of visible minorities living in cities with a small number of companies with foreign investment, a small financial sector, and a low trading volume earn about 13 times less than those living in cities with a high number of companies with

Table 5
Predicted Values of Earnings by Level of Economic Globalization,
Nativity and Racial/Ethnic Groups: 1996

Volume of Trading	Low Level of Foreign Investment (25 out of 500 companies)		High Level of Foreign Investment (75 out of 500 companies)	
	Small Proportion of Financial Industry	High Proportion of Financial Industry	Small Proportion of Financial Industry	High Proportion of Financial Industry
Native-born with Universityy Education				
Low Volume (0 Vol.)				
Charter Group	22,109	55,092	15,611	38,900
European	25,053	183,277	14,253	104,272
Visible Minority	16,660	259,303	8,077	125,839
High Volume (200 mil. Vol.)				
Charter Group	35,093	87,444	24,779	61,744
European	47,608	348,278	27,086	198,145
Visible Minority	28,474	443,190	13,805	215,078
Immigrant with University Education				
Low Volume (0 Vol.)				
Charter Group	15,943	80,158	9,777	49,107
European	3,547	8,053	2,253	5,114
Visible Minority	6,184	187,838	2,776	75,339
High Volume (200 mil. Vol.)				
Charter Group	27,966	140,611	17,150	86,142
European	7,171	16,281	4,554	10,340
Visible Minority	17,850	484,443	8,012	217,457

foreign investment, a large financial sector, and a high trading volume. However, the difference is about 35 times for immigrants who are visible minorities. Similarly, the earnings differences between native-born and immigrant members of the Charter groups are 3 and 5 times respectively when they work in cities with low levels of economic globalization as compared to high levels. Finally, as shown in the previous discussion, native-born and immigrant of visible minority, clearly benefit more from the process of economic globalization than their counterparts in the Charter and European groups.

Conclusion

Drawing from the literature, we developed four measures of economic globalization: number of non-resident workers in a CMA to approximate the size of expatriates, number of companies with foreign investment, size of financial industry, and volume of equity trading to capture international capital flow. We addressed the question of whether the effects of economic globalization benefit or harm individual earnings. Our results in the eight largest eight CMAs in Canada, based on various data sources, show a complicated picture. In general, an increase in companies with foreign investment is negatively related to individual earnings, controlling for individual background. On the other hand, a larger financial sector and a larger volume of equity trading increase individual earnings, while the effect of the volume of equity trading is minimal.

Results further show that economic globalization affects the earnings of immigrants more than those of the native-born population. A closer look suggests that the effect of economic globalization on earnings of native-born and foreign-born members of the Charter and European groups can be beneficial or harmful. It is also true for foreign-born members of visible minorities. However, earnings of native-born visible minorities are only positively related to economic globalization, specifically the larger size of financial industry.

These results have several important implications. First, the effects of economic globalization on individual earnings are far more complicated than a simple positive or negative effect. The answer depends on which aspect of economic globalization and which group is being considered. A careful delineation of the discussion of the relationship between economic globalization and earnings is necessary. Second, the effects of economic globalization are unique to visible minority groups. Economic globalization is beneficial to native-born members of visible minority groups and is very sensitive to their immigrant members. Perhaps because of their recent immigration to Canada, most of them still maintain transnational ties to foreign countries, which even benefits the native-

born generation. However, the relationship among transnational ties, economic globalization, and earnings remains to be tested.

The growing public discussion on the effects of globalization calls for more explicit development of the arguments and statistical analysis to test such arguments. In this paper, we provide the first quantitative analysis of the effect of economic globalization on earnings. Future studies on the topic should explore this relationship by looking at cities in other countries, to give more attention to and develop further the understanding of the unique effects of economic globalization on visible minority groups and immigrants,

End Notes:

1. Toronto has the highest proportion of immigrants in Canada, 35%, followed by Vancouver and Montreal, 13 and 12%, respectively. Other CMAs share a lower proportion of immigrants, which is below 4 %.

2. Native-born Canadians only include persons who are Canadian citizens by birth. Immigrants include persons who are landed immigrants or are naturalized Canadian citizens.

3. The large sample size may affect the variable with minimal effect on the dependent variable to become statistically significant. Thus, we will interpret the results carefully.

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