



# METROPOLIS BRITISH COLUMBIA

Centre of Excellence for Research on Immigration and Diversity

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# **Immigrants and the Canadian Economy**

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# Metropolis British Columbia

## *Centre of Excellence for Research on Immigration and Diversity*

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### **IMMIGRANTS AND THE CANADIAN ECONOMY**

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## 1. INTRODUCTION

This paper highlights the main research findings in the Economic and Labour Market Integration Domain of Metropolis British Columbia (MBC). Established in 1996 as part of the national Metropolis Project and funded by the federal government, the provincial government, and associated universities, MBC is located at Simon Fraser University and the University of British Columbia, with a Co-director based on each campus. This centre of excellence for research on immigration and diversity was continuously funded from 1996 to 2012, but will close down permanently in Fall 2012. MBC's main objective has been to place in the public realm relevant material that will aid the public discourse on Canada's emerging immigration policy issues. This paper is based almost entirely on working papers published in the MBC working paper series, available online at [www.mbc.metropolis.net](http://www.mbc.metropolis.net). Other works cited are listed in the references at the end of the paper.

Canada is one of the world's major immigrant-receiving countries, accepting more immigrants per capita over the past 3 decades than any other country in the world, with the exception in some years of Australia (Canada's immigration program, October 2004). Immigration has accounted for more than half of Canada's population increase in the 20<sup>th</sup> century, and the share of new immigrants in population increase has grown steadily since the 1930s (Bloom and Gunderson, 1991). Canada also has a broad immigration policy that is reflected in its ethnic diversity. There are 34 different ethnic groups in Canada with at least one hundred thousand members, 10 of these ethnicities consist of over one million people, and 16.2% of the Canadian population is a visible minority immigrant (Statistics Canada, 2008).

Canada has also experienced a steady increase in the education and skill level of immigrants. Of the recent immigrants who entered Canada between 2001 and 2006, 51% had a university degree. This is more than twice the proportion of degree holders among the Canadian-born population at 20% and significantly higher than the proportion of degree holders among immigrants who entered Canada before 2001 at 28% (Statistics Canada, *Educational Portrait of Canada*, 2006). However, the economic outcomes of newcomers to Canada have declined relative to the Canadian population in the last few decades (Statistics Canada, 2007).

All major political parties in Canada support sustaining (or increasing) the current level of immigration. Immigration plays an important role in Canada's economy, and it has been a key component of Canadian labour market policies. Policy makers use immigration as an important source of labour force growth and also as an instrument to improve the impact of variations in the labour market.

The literature on economics of immigration, including studies reviewed in this report, has mainly focused on analyses of two main questions: How do immigrants fare in the host country labour market? And what effects do immigrants have on the host country labour market? These analyses are motivated by various policy concerns and provide valuable insight into the immigration experience. The remainder of this report is organized as follows: Section 2 reviews the studies that evaluate the labour market performance of immigrants, Aboriginals, and visible minorities in Canada, focusing mainly on employment earnings; Section 3 summarizes the studies that investigate the determinants of immigrants' labour market outcomes; Section 4 focuses on studies examining immigrants' occupational choice and occupational mobility in Canada; Section 5 provides a summary of studies examining the effect of immigration

on Canada; Section 6 looks at studies analyzing immigration patterns and immigration policy; Section 7 provides a summary of studies that evaluate the labour market performance of different classes of immigrants such as business immigrants, refugees, and temporary workers. Finally, Section 8 concludes.

## 2. IMMIGRANTS LABOUR MARKET PERFORMANCE

One of the most important issues in the immigration debate has been the comparative labour market performance of immigrants and natives and the determinants of immigrant success in adjusting to their new labour market conditions. Insight regarding these issues is crucial for designing future immigration policies. Two of the ways to evaluate the labour market performance of immigrants are relative employment earnings—specifically, how immigrants’ earnings compare with the earnings of the Canadian-born—and immigrants’ economic assimilation rate into the new labour market. Different studies have raised some concerns regarding the recent performance of immigrants in the Canadian labour market, prompting much public concern and policy debate. More recently, there has also been a growing interest in examining income disparities across ethnic groups in Canada and the extent to which these disparities extend to the Canadian-born generations. Researchers have used different empirical methods and data from different sources to assess the magnitude of wage and earnings differentials facing different ethnic groups, especially visible minorities.

Antecol et al. (2005) examine the overall population of immigrants by using 1980/91 and 1990/91 censuses from Australia, Canada, and the United States to estimate the effects of time in the destination country on male immigrants’ wages, employment, and earnings. Immigrants are found to have lower employment than natives, regardless of their arrival cohort, but the em-

ployment deficit seems to be larger in Australia and the US than in Canada for newly arrived immigrants. They find that while in the US and Australia most of the employment assimilation happens within the first 10 years of arrival, it takes longer for Canadian immigrants to assimilate. However, this assimilation process eventually eliminates the initial employment gap in all three countries.

Looking at wages, newly arrived immigrants experience a substantial wage gap with their native counterparts that are more modest in Australia than in Canada and the US. In addition, more recent cohorts of immigrants also experience larger wage gaps with their native counterparts relative to their predecessors, a finding which is consistent with previous studies (e.g., Baker and Benjamin 1994; Bloom, Grenier and Gunderson 1995; Funkhouser and Trejo 1998; Borjas 1985, 1995). For instance, Canadian immigrants who arrived in Canada in 1986-91 experience a wage disadvantage of about 30 percent relative to their immigrant counterparts who arrived before 1970. Antecol et al. find no evidence of wage assimilation for Australian immigrants. Despite considerable wage assimilation for both Canadian and American immigrants, their wages never catch up with those of native workers for more recent immigrants. They also find that total earnings assimilation is greatest in the United States and least in Australia during the 1980s. Employment assimilation explains all of the earnings progress experienced by Australian immigrants, while wage assimilation plays the dominant role in the United States and with Canada in between. Antecol et al. argue that relatively inflexible wages and generous unemployment insurance in countries like Australia may be the reason behind the fact that assimilation occurs along the quantity rather than the price dimension.

Gozalie (2002) finds that immigrants from Western Europe experience positive earnings premiums over their Canadian counterparts upon entry.

Pendakur and Pendakur (1996) use 1991 census data to examine the extent to which ethnically based earnings gaps exist in Canada, the degree to which visible minority groups are subject to these gaps, and the degree to which these gaps extend to the Canadian-born generations. They also investigate whether these earnings gaps vary by gender. Their findings suggest that among men, visible minorities and Aboriginals experience large earnings differentials relative to white workers which are not explained away by differences in socioeconomic characteristics between these groups. The large earnings gaps faced by visible minorities are present in both native-born and immigrant populations. On the other hand, white immigrants do not face a large earnings gap with their white Canadian-born counterparts. This suggests visible minority immigrants do much worse than white immigrants conditional on their observed characteristics.

In contrast, they find that among women, Canadian-born visible minorities do not experience an earnings gap with their Canadian-born white female counterparts. However, both white and visible minority immigrant women experience earnings gaps compared to native-born white women, but the earnings gap for visible minority immigrants is twice that of white immigrants. They also find that place and level of education do not explain much of the earnings gaps faced by immigrant men and women. Even after controlling for (imputed) foreign education, Pendakur and Pendakur (1996) find large earnings gaps remained.

Focusing only on minorities born in Canada, Pendakur and Pendakur (2004) use "long form" records collected by Statistics Canada for 1971, 1981, 1986, 1991, and 1996 to assess the earnings differentials between visible minorities, Aboriginals, and Canadian-born whites. Taking into account differences in individual socioeconomic characteristics between these groups (such as age, edu-

cation, experience, province of residence, etc.), they quantify the size of the white-Aboriginal and white-visible minority earnings differentials in Canada as a whole and in ten large Canadian cities across five census years. They find a pattern of improving differentials through the 1970s, stability through the 1980s, and an increase in the gaps between 1991 and 1996. These general patterns are found to be the same for both men and women.

Specifically, they find that in 1971 Canadian-born visible minority women earned about 9% more than white women with similar characteristics. By 1981, however, much of this earnings premium disappears. From 1986 to 1996, Canadian-born visible minority women seem to be losing ground. In 1996, only visible minority women in Vancouver experience an earnings premium. In all other CMAs, they have earnings significantly less than earnings of white women. For example, in Montreal and Toronto, visible minority women earn 19% and 12% less, respectively, relative to white women with similar personal characteristics.

With Canadian-born visible minority men, they find that in 1971 they face a negative earnings differential of 5% in comparison with white workers with similar personal characteristics. This differential is between 3% and 7% through 1991. However, the relative position of Canadian-born visible minority men deteriorates in the early 1990s. By 1996, the negative earnings differential grows to about 15%.

They find that Aboriginal females experience a 20% gap in annual earnings from wages and salaries with white Canadian-born females who have similar age, official language ability, schooling, and marital status characteristics. The gap decreases to 9% at 1986, but then reverses direction after 1986, almost reaching its 1971 high point. For Canada as a whole, the patterns

of change in earnings differentials over time for Aboriginal men are similar to those for Aboriginal women. However, the negative earnings differentials are much larger for men than for women. At the Canada-wide level in all the census years, Aboriginal men receive approximately half the earnings of white men with similar characteristics.

Pendakur and Pendakur (2008) further explore the economic outcomes of seven groups of Aboriginal people defined along their legal registry under the Indian Act, their self-reported identity, and their ethnic ancestry. Similar to their 2004 study, they find that Aboriginal men and women face severe earnings and income disparity relative to majority persons in Canada. Within the Aboriginal population, they find that registered Indians fare worst, those with self-reported Aboriginal identity fare somewhat better, and persons with Aboriginal ancestry fare better still. However, they point out that even those in the last category evidence disparities similar to those experienced by the most disadvantaged non-Aboriginal minorities in Canada. Their results also suggest that the economic prospects of Aboriginal people living in cities with large Aboriginal populations are worse, which seems to indicate that the beneficial enclave effects found for other ethnic groups in Canada's cities do not apply to Aboriginal people and may even work to their disadvantage.

Pendakur and Pendakur (2011) use 1996, 2001, and 2006 census data to update their previous findings. Looking at Aboriginal workers, they find some improvement for both men and women. While Aboriginal females earned about 13% less than white females in 1996, this gap was reduced to 7% by 2006. For men, the earnings gap, while still large, fell from 59% in 1996 to 42% in 2006. In contrast, they find that the earnings gaps faced by Canadian-born visible minorities have not eroded since the 1990s. Their findings also suggest that patterns observed in the 1990s, such as relatively poor earnings out-

comes of South Asians and Blacks, and relatively poor economic outcomes of visible minorities in Montreal and Toronto are still evident into the 2000s. They point out that this is somewhat surprising given that the size of this population has significantly increased over the last twenty years.

Focusing on the Vancouver Census Metropolitan Area and using long form records collected for the 1971, 1981, 1991, 1996, and 2001 Censuses of Canada, Pendakur (2005) examines whether significant changes in Vancouver's ethnic composition have produced an ethnically unstratified labour market. He documents that in 1981 less than 7% of the population of people in Vancouver was visible minority, while about 1% was aboriginal. By 2001, these proportions grew to 37% and 2%, respectively. He shows, however, that despite a great convergence between aboriginal and white men's earnings during the 1970s, earnings differentials between these two groups in Vancouver approximately doubled between 1980 and 2000. With respect to visible minorities, he finds that those living in Vancouver in the 1980s and 1990s experienced comparatively better earnings outcomes. While visible minority men earned about 12% less than white men in Toronto and over 20% less in Montreal, they earned only 6% less than similarly aged and educated white men in Vancouver, an earnings gap that is two or three times smaller.

Comparing average wage outcomes of different groups, while interesting, does not tell us much about the points in the wage distribution where these wage gaps appear and where they are more pronounced. For instance, the documented average wage gap faced by visible minorities could be uniform throughout the wage distribution, or it could be concentrated at the bottom or at the top of the wage distribution. These different wage patterns have different policy implications and require different remedies. More recently, starting with the work of Albrecht et al. (2003) in Sweden, there has been a

growing interest in examining the wage gaps throughout the wage distribution, mainly motivated by this popular notion that some groups of workers (e.g., females or visible minority immigrants) might face a glass ceiling in the labour market. Existence of a glass ceiling faced by these groups would imply that they are under-represented in high-paying jobs in the economy even after taking into account their socioeconomic characteristics and, therefore, they cannot access high-wage regions of the wage distribution. As a result, they will face larger wage gaps at the top of the wage distribution than at the middle or bottom.

Following this new literature, Pendakur and Pendakur (2005) use 2001 census data to examine the existence of a glass ceiling faced by Aboriginals and visible minorities in Canada. They examine the existence of a glass ceiling by first measuring the wage gap faced by Aboriginals and visible minorities (relative to whites) in different parts of the wage distribution and then using quantile regression techniques. They find that Aboriginals and visible minority men face the largest wage gap at the bottom of the wage distribution. This suggests that they are mainly over-represented in low-paying jobs and, therefore, stuck at the bottom of the wage distribution. In contrast, when they focus on older and more educated men, they find evidence consistent with the existence of a glass ceiling faced by visible minority men. These men face larger wage gaps at the top of the wage distribution than at the bottom.

Since the main antidiscrimination policy tool in Canada is a preferential hiring policy for government employers and given that there does not seem to be a glass ceiling effect faced by Aboriginals and younger and less educated visible minority men, this type of policy might not be very effective in dealing with wage disparities faced by these groups. Policy attention is most needed for these groups at the bottom of the wage distribution, where government

employers infrequently shop for employees and where they seem to be over-represented compared to white workers. On the other hand, the existence of a glass ceiling faced by older and more educated visible minority men would suggest that more attention is needed to identify the potential barriers that block the advancement of these workers in the labour market, and more research is required into practices, policies, and the manner through which the high-paying jobs in the economy are being filled.

Using a Canadian linked employer-employee dataset, called the Workplace and Employee Survey, Pendakur and Woodcock (2010) examine the existence of glass ceilings faced by immigrant and visible minority workers. They also compare the economy-wide and within-firm estimates of wage differentials faced by these two groups in different parts of the wage distribution to examine the extent to which any observed glass ceiling effect is driven by immigrant and visible minority workers' segregation into lower paying firms versus their segregation into lower-paying jobs within firms. Making this distinction has important policy implications. If immigrant and visible minority workers' poor wage outcomes are driven by their segregation into low-paying firms compared to their white Canadian-born counterparts, then employment equity policies that target hiring decisions directly are more effective in improving outcomes. However, if these poor wage outcomes are driven by immigrant and visible minority workers' segregation into low-paying jobs within firms, then pay equity policies that target wage decisions directly are more effective.

Pendakur and Woodcock (2010) find no evidence in support of a glass ceiling effect faced by Canadian-born visible minority males. However, they find that Canadian-born visible minority females, on average, face a 9% economy-wide wage gap with their Canadian-born white female counterparts, and around 20% of this wage gap can be explained by their segregation into

lower-paying firms. In contrast, they find that non-recent male immigrants face an economy-wide glass ceiling, which is significantly more severe for visible minorities.<sup>1</sup> A considerable part of the glass ceiling effect faced by non-recent male immigrants can be attributed to their segregation into lower-paying firms. Looking at non-recent female immigrants, they do not seem to face a glass ceiling effect, but they do experience wage disparities that are persistent throughout the wage distribution (around 5% for whites and around 10% for visible minorities) which are partly driven by their inter-firm segregation.

Finally, recent male immigrants and recent white female immigrants face economy-wide wage gaps that are larger at lower parts of the wage distribution. This suggests that they face a sticky floor implying that they are over-represented in low-paying jobs in the economy and, therefore, stuck in low-wage regions of the wage distribution. The degree of over-representation is particularly severe for visible minority recent immigrant men, with 28.9% of them earning wages in the bottom decile of the wage distribution after taking into account their socioeconomic characteristics. Segregation of these workers into lower-paying firms contributes substantially to the sticky floor effect they face. In the case of recently arrived visible minority men in particular, inter-firm segregation accounts for the entire sticky floor effect they experience.

Altogether, these results seem to suggest that recently arrived men initially sort into very low-paying jobs. As they stay longer in the labour market, their wage outcomes improve, and they move up the wage distribution. However, the glass ceiling effect faced by these workers blocks their advancement into high-wage regions of the wage distribution. The segregation of these workers into lower-paying firms also seems to play an important role in generating

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<sup>1</sup> Recent immigrants are defined as those who have been in Canada less than 10 years, while non-recent immigrants are accordingly defined as those who have been in Canada for more than 10 years.

these patterns, exacerbating the sticky floor effect they face upon arrival and contributing to the glass ceiling effect they face later on.

Mata (2010) examines the economic vulnerability of workforce members from ethnic groups (using their labour market, employment, income, and poverty-related attributes) in the 15 major metropolitan areas of Canada. He finds that economic vulnerability levels are substantially higher than average among Aboriginals and recent visible minority immigrants. Mata suggests that more attention needs to be paid to profiles of the most economically vulnerable ethnic groups in Canada in order to gain more insight into the factors that drive poor labour market and economic outcomes in metropolitan labour markets. This will in turn help to better inform, design, and implement appropriate intervention programs.

### 3. DETERMINANTS OF IMMIGRANTS LABOUR MARKET OUTCOMES

#### *3.1 Education, labour market experience, and language proficiency*

Different studies indicate that the traditional pattern of immigrant economic integration in Canada has changed, and there is considerable evidence suggesting that the economic outcomes of recent immigrants to Canada have declined in comparison with earlier cohorts (e.g. Bloom, Grenier and Gunderson 1995; Picot, Hou and Coulombe 2007; Antecol et al. 2005). However, the causes and consequences of deteriorating immigrants' labour market outcomes are still hotly debated. Examining the determinants of labour market outcomes for recent immigrants can play an important role in understanding this phenomenon. Many researchers have focused on the human capital characteristics of immigrants in order to explain these patterns. A common explanation for the earnings gap between immigrants and Canadian-borns is the possibility that

employers do not value foreign education or work experience as much as they value Canadian education and work experience. This could be either due to actual differences in the quality of education and labour market experience between the country in which they are acquired and the host country, or due to negative perceptions about these human capital characteristics obtained abroad stemming from lack of information or stereotypes.

Guo and DeVoretz (2005a, 2005b) provide evidence that suggests even the most recent and professionally qualified immigrants from China are struggling in the labour market due to difficulties in having their foreign credentials recognized. Using 1991 Canadian Census data, Schaafsma and Sweetman (1999) also find that foreign labour market experience yields a very low return in the destination country. Laryea (1998) analyzes substitutability and complementarity relationships between immigrants and Canadian-borns. He paradoxically finds that professionally trained immigrants and unskilled Canadian-born workers are substitutes in the labour market. He suggests that this could be attributed to problems immigrants experience in terms of skills recognition in Canada. Hiebert and Pendakur (2003) use census data to show that the relative human capital of immigrants measured by their post-secondary educational attainment has declined over time, but is still above the average of the Canadian-born population. They argue that this overall decline in immigrant education relative to the Canadian-born along with the vicious cycle of “no Canadian experience, no job” has narrowed the range of options available to immigrants in the labour market. This has trapped immigrants in what they broadly define as niche sectors which have also been associated with significant income disadvantages. They conclude that income disadvantages experienced by immigrants and minorities appear to be larger than can be

explained by changes in human capital characteristics, especially the drop in self-employment income.

Mata (2008) uses 2006 census data to examine the relationship between the country of post-secondary education completion and selected indicators of labour market activity of Canadian immigrants.<sup>2</sup> He finds that the likelihood of obtaining Canadian training increases with immigrants' length of stay in Canada. In addition, individuals with Canadian training have better labour market outcomes than those with foreign post-secondary training. His findings also suggest that those immigrants with foreign post-secondary training from Western educational systems (such as Germany or France) have significantly better labour market activity outcomes relative to those trained in non-Western ones such as Pakistan, China, and South Korea.

Another potential explanation for immigrants' poor economic outcomes is growing cultural and language differences as the proportion of applications from Europe has decreased, and the proportion from the Asia Pacific region has increased. Looking at immigrants from South Asia and the former Yugoslavia who settled in Greater Vancouver, Bauder and Cameron (2002) examine the characteristics and labour market outcomes of the two immigrant groups and report the results of an interview survey with community leaders and administrators of NGOs servicing the two groups. Their results emphasize a set of interconnected factors, including not only immigrant class and employment credentials but also cultural meanings of work, cultural competence, discrimination, culturally differentiated labour market conventions, job search patterns, and language as key determinants of immigrants' labour market integration.

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<sup>2</sup> Labour market activity is measured by three indicators: labour market participation rates, employment rates, and unemployment rates.

Pendakur and Pendakur (1997) use 1991 census data to examine the relationship between earnings and employment probabilities and three types of language knowledge: official language knowledge, non-official language knowledge, and knowledge of a mother tongue. They argue that people who speak more than one language might gain a competitive edge by being able to work in different sectors of the economy and by having a better chance to get involved in activities related to international trade and tourism. However, one challenge in estimating the true return to knowing an additional language is disentangling the benefit due to language knowledge versus that due to personal ability. One could argue that people who are able to speak more than one language are also more able to gain higher wages. Pendakur and Pendakur (1997) overcome this challenge by distinguishing between language knowledge which is known from birth and language knowledge which is gained later in life. They find that returns to language knowledge are quite different across CMAs. However, in all CMAs, knowing an official language is better than not knowing an official language and, often, being official language bilingual is better than being unilingual. They also explore the economic returns of languages known from birth versus languages learned later in life and find that mother tongue language knowledge is correlated with poorer labour market outcomes in comparison with learned language. They, therefore, conclude that the true return to official and non-official language knowledge, unpolluted by unobserved variable bias, is somewhere between the two returns.

Finally, looking at the thirteen largest non-official languages spoken in the three largest CMAs in Canada, they find no evidence suggesting non-official language knowledge improves labour market outcomes. Rather, they find an income penalty associated with it, which they attribute to the fact that the vast majority of the people who speak non-official languages are part of ethnic lan-

guage communities. Thus, their results might reflect cultural attributes rather than a direct penalty. However, the fact that the penalties remain even after extensive controls for immigrant status suggests other explanations such as labour market discrimination.

Chiswick and Miller (2000) analyze the effects of language practices on earnings among adult male immigrants in Canada using the 1991 Census. Similar to Pendakur and Pendakur (1997), they find that proficiency in official languages increases earnings. Using selectivity correction techniques to account for the possibility that the non-random nature of these language groups may result in biased estimates, they find that there is a complementarity between language skills and both schooling and pre-immigration labour market experience. Language proficiency and post-migration experience appear to be substitutes, which means those with greater proficiency demonstrate a smaller effect of time in Canada on earnings.

DeVoretz et al. (2000) argue that since Canada, in effect, does not base immigrant entry or citizenship on knowledge of either of its official languages and since acquisition of a second language in Canada is voluntary and largely dependent on labour market incentives, the equilibrium outcome will be minimal oral second language acquisition skills. They suggest a loan program for second language acquisition under which a skilled or professionally qualified immigrant would receive a contingent loan to obtain the amount of language that is seen by him as beneficial in the social, labour, and political spheres.

Oreopoulos (2009) uses an innovative approach to investigate why Canadian immigrants arriving under the point system struggle in the labour market. Thousands of resumes are created and sent online in response to job postings across multiple occupations in the Greater Toronto Area. The

characteristics on the resume are randomly manipulated to examine what affects employer's decisions on whether to contact an applicant for an interview. The resumes were created in a way to plausibly represent recent immigrants under the point system from the three largest countries of origin (China, India, and Pakistan) and Britain as well as non-immigrants with and without ethnic-sounding names. Oreopoulos also randomizes the country in which applicants received their undergraduate degree and their job experience, whether they listed themselves as fluent in multiple languages (including French), and whether they have additional education credentials. This enables him to estimate what resume elements affect callback rates and compare different theories behind the native-immigrant gap.

The study generates four main findings: 1) interview request rates for English-named applicants with Canadian education and experience were more than three times higher compared to resumes with Chinese, Indian, or Pakistani names with foreign education and experience (5 percent versus 16 percent) but were no different compared to foreign applicants from Britain; 2) when Canadian labour market experience was added to the resumes, callback rates for visible minority immigrants increased to 11 percent (from 5 percent), suggesting experience acquired in Canada was much more valued by employers than if acquired abroad; 3) for those applicants with four to six years of Canadian experience listed on their resumes, having a degree from Canada or having additional Canadian education did not have any impact on the chances for an interview request; 4) callback rates were substantially different for Canadian applicants that only differed by name as those with English-sounding names received interview requests 40 percent more often than applicants with Chinese, Indian, or Pakistani names (16 percent versus 11 percent). Oreopoulos suggests that these results demonstrate considerable

employer discrimination against applicants with ethnic names or with experience obtained abroad.

To understand the underlying causes behind this type of discrimination, Oreopoulos and Dechief (2011) design a follow-up study by sending out randomized resumes to online job postings across multiple occupations in Toronto, Montreal, and Vancouver. They examine whether this discrimination can be attributed to underlying concerns about worker productivity, or simply prejudice, and whether the behaviour is likely conscious or not. They argue that if name-based discrimination arises from language or social skill concerns, we should expect to observe less discrimination when: 1) including other attributes related to these skills on the resume such as language proficiency and active extracurricular activities; 2) looking at occupations that depend less on these skills, like computer programming and data entry; and 3) listing a name more likely to be an applicant born in Canada, like a Western European name compared to an Indian or Chinese name. Oreopoulos and Dechief (2011) report that in all three cases they still get results similar to those found previously, implying productivity concerns cannot explain name bias. They also ask recruiters to explain why they believed name discrimination occurs in the labour market. Most of them respond that they often treat a name as a signal that an applicant may lack critical language or social skills for the job which contrasts the findings from the quantitative analysis.

Oreopoulos and Dechief (2011) suggest that the contrasting findings are consistent with a model of “subconscious” statistical discrimination, where employers justify name and immigrant discrimination based on language or social skill concerns, but incorrectly overemphasize these concerns without taking into account offsetting characteristics listed on the resume. Factors such as pressure to avoid bad hires or the need for quick review of applicants’

resumes exacerbate these effects. They suggest that masking names when trying to decide who to interview while considering better ways to discern foreign language ability may help improve immigrants' opportunities in the labour market.

### *3.2 Social capital and ethnic diversity*

A large body of research that examines the determinants of immigrants' labour market outcomes has focused on the role of human capital and labour market structure to explain these outcomes. More recently, different studies have emphasized the role of social capital as a mechanism to understand immigrants' labour market performance and integration. Social capital could be characterized as specific form of social conduct, such as networks, norms, and trust that creates interaction among people in ways that encourage the production of social goods. There is evidence that suggests social capital inspires confidence in public institutions, encourages participation in social, cultural, and political activities, and is positively associated with high levels of education. These positive associations are appealing to policy makers because trust, reciprocity, and co-operation could lead to higher outcomes on quality of life indicators such as public safety, health, and life satisfaction and generate value not only for individuals, but for communities and societies in general.

Using the Equality, Security and Community Survey, Pendakur and Pendakur (2005) explore how ethnic identity affects labour market behaviour. Rather than using usual proxies for identity used in empirical work such as neighbourhood composition, language use, or ethnic origin, they use a direct measure of ethnic identity based on a survey question which asks "is your ethnic origin very important to you, somewhat important, not very important, or not at all important?" They find that people who report deeper ethnic iden-

tity are on average more likely to use informal methods to find jobs, which is consistent with identity playing a role in ethnicity-based job-finding networks. The strength of this correlation differs across ethnic groups and with the size of ethnic communities and is quite large for some groups. For example, among European (white) ethnic minorities whose ethnic origin is “very important”, those living in cities with large co-ethnic populations are about 25% more likely to use informal networks than those living in cities with small co-ethnic populations. They also find that for visible minority men, ethnic identity is correlated with much lower occupational quality. They argue that this is consistent with ethnic identity being correlated with behaviour that serves to separate ethnic minorities from majority populations which may result in discrimination and poor labour market performance.

Gross and Schmitt (2011) develop a theoretical model that explains why new immigrants cluster within countries and across countries in groups that are ethnically homogenous. In addition, using information on immigration flows to OECD countries between the mid-1980s and the mid-1990s, they find empirical support for the role of cultural communities in attracting new immigrants. They find that the clustering effect is much stronger in Australia, Canada, and the US compared to Europe and Japan for non-OECD source countries which potentially reflects the longstanding immigration objectives of these countries. Their results also suggest that there needs to be a minimum community size to trigger the clustering effect, but as the community becomes larger its attractiveness decreases. Edmonston (2002) also finds evidence that suggests Canadian immigrants are more likely to stay in provinces with a higher proportion of immigrants of the same ethnicity as themselves.

Nanavati (2009) uses the 2002 Equality, Security and Community Survey to examine the role of social capital in determining labour market outcomes of

South Asia-born immigrants in Canada. The results suggest that social capital helps South Asia-born immigrants in their search for jobs and finding employment. However, it does not seem to be a significant determinant in explaining variation in earnings.

There are also some concerns regarding negative relationships between social capital and indicators of ethnic diversity at the individual and community levels. Some argue that differences in levels of “civic-ness” across different ethnic groups might lower overall stocks of social capital. Others suggest that interaction of majority and minority groups in society might reduce trust, civic, and cooperative behaviours. Aizlewood and Pendakur (2004) use data from the 2000 Equality, Security and Community Survey, to examine whether indicators of social capital vary based on ethnic origin and the degree of ethnic diversity in Canada. The main contribution of their study is examining not only visible ethnic differences, but also the specific attitudes and behaviours of twenty-two distinct ethnocultural groups. They compare the extent to which relative and absolute individual and community level characteristics are successful in predicting outcomes on social capital measures. Individual-level characteristics used in their study refer to personal markers, such as ethnocultural ancestry, immigrant status, and visible minority status. Community-level characteristics refer to the features of the environment in which an individual lives, such as the local proportion of visible minorities, the area’s cultural diversity, and the size of the community.

Their results suggest that in Canada, individual ethnocultural characteristics do not significantly affect scores on social capital measures. In contrast, they find that broad designations of ethnicity such as visible minority and immigrant status weakly affect measures of social capital. Community-level factors, however, are found to play a more ambiguous role: they find that people

living in larger communities on average have lower interpersonal trust, lower propensity to join organizations, and spend less time with friends. On the other hand, scores on social capital indicators tend to be positively correlated with diversity at the community-level. However, the addition of individual-level ethnocultural attributes such as education and income mitigate these differences. They find that individual socioeconomic characteristics such as education and income are associated with higher scores on measures of participation and interpersonal trust and hold great explanatory power that remains consistent despite the presence of other statistical controls. They speculate that since there is a close and positive correlation between community size, diversity, wealth, and education in Canada, an urban lifestyle—or “city effect”—may be a more accurate predictor of civic attitudes and behaviours. Finally, they conclude that based on their results it is not justifiable or realistic to control diversity; and it is certainly not the answer to concerns regarding its potential effects on social capital. Education and income seem to be far more effective tools for affecting social capital.

Mata and Pendakur (2010) examine the degree to which the characteristics of both individuals and the cities in which they live may affect scores on three domains underlying social capital—trust, interaction, and membership. They find that diversity, through both individual and place attributes, affects social capital formation. An increase in the proportion of visible minorities in a city is found to lower the average level of trust, suggesting that higher diversity could potentially have a negative impact on this aspect of social capital formation. However, the impact of diversity is not always found to be negative. For instance, Mata and Pendakur find that Europeans, South Asians, and Aboriginals have the same levels of participation and interaction relative to those of British origins and higher than those reporting French origins. They

also find that as city-level diversity increases the level of participation in organizations and trust in others increases. This suggests that bridging social capital can increase as diversity increases. They conclude that city-level diversity does not appear to be a threat to social capital formation. However, if we want to continue to work together, we should find ways to incorporate minorities and allow trust, in particular, to grow.

#### 4. IMMIGRANTS' OCCUPATIONAL CHOICE AND OCCUPATIONAL MOBILITY

One of the channels through which the factors discussed above can influence immigrants' labour market outcomes is through their effect on immigrants' occupational choice and mobility. Mata and Pendakur (1998) use 1961, 1971, 1981, and 1991 Canadian Census data to analyze cohorts of male immigrants who arrived in Canada between 1945 and 1961 and compare them to Canadian-born males with similar characteristics in order to examine shifts in employment patterns across four census periods. They find that immigrants with low levels of schooling consistently had higher rates of self-employment relative to their Canadian-born counterparts and that the longer they stayed in Canada, the more likely they were to become self-employed. They suggest that the pursuit of self-employment may be tied to the existence of a segmented labour market as also suggested by Hiebert (1997), particularly for immigrants with low and moderate levels of schooling. Sociologists have argued that immigrants who face structural barriers in the labour market might look for other alternatives to wage labour. Studying self-employment patterns among male immigrants, Schuetze (2005) finds that the assimilation process involves a transition from wage employment to self-employment. He also finds that changes in the assimilation process coincide with policy developments over the period examined (roughly, from 1956 to 1996). He suggests that

these policy changes may have resulted both in higher self-employment propensities upon entry and a reduction in the amount of assimilation and the time frame over which assimilation occurred. However, these policies are found to have weak effects over the long run (measured in years since migration).

Mata and Pendakur (1999) examine how immigrants and Canadian-born workers who lived in the three largest CMAs in Canada are sorted across different industries and how these patterns of sorting changed over time. They specifically focus on immigrants who arrived in Canada during the 1960s, and study where they worked over time in the labour force, and how this labour force role changed over time (i.e., from 1971 to 1991). Their focus on this particular cohort of immigrants is mainly motivated by changes in Canadian immigration policy in the 1960s which also substantially changed the type of immigration intake. While before, immigration intake was mainly focused on family reunification, during the 1960s it was split into two streams—a sponsored stream based on family reunification and an independent stream based on skills and schooling. Central to their findings is that labour force participation is strongly affected by both shifts in the labour market and social integration of immigrants. They find evidence of much more prevalent mobility opportunities for labour force positions at the higher end of the labour market than at the lower end. They also find evidence of tight ethnic enclaves at the lower end of the education/industry market. They do not, however, find such enclaves in industries requiring higher levels of schooling. They argue that this is because the effect of high levels of schooling dominates the effect of ethnicity and attractiveness of the ethnic enclaves.

Their results also suggest that over the twenty-year period from 1971 to 1991, Canadian-born workers slowly moved away from dying sectors of the economy as the economy shifted from manufacturing toward services. Often,

they find that these positions abandoned by Canadian-borns were filled by immigrants with low levels of schooling and, as a result, ethnic niches were formed around the needle trades, construction, and manufacturing. On the other hand, they find that industrial niches requiring higher levels of education became increasingly ethnically diverse over time. Similar to the studies mentioned above, they find evidence in support of a substantial move towards self-employment by immigrants working in high education industries. They argue that this might be a channel through which immigrants try to move away from a wage labour sector with relatively more limited opportunities for them and use self-employment as a path to upward mobility.

Finally, they also find substantial gender differences between industrial propensities of immigrants. Immigrant men with low levels of schooling are more likely to work in sectors which were in decline, such as construction or manufacturing. However, immigrant women, despite being concentrated in the needle trades, were also likely to work in growth sectors such as restaurants or consumer services. Immigrant men and women with higher levels of schooling found greater opportunities in the growing social services sectors such as health and education.

Hayfron (1997) compares the occupational distribution of natives and immigrants in Norway. He finds that differences in the way natives and immigrants with the same individual and job characteristics are sorted across occupations, rather than wage disparities between these groups within occupations, explains most of the native-immigrant wage gap in Norway. Similarly, Thompson (2000) uses 1991 and 1996 census data to compare occupational skill distributions between immigrants and the Canadian-born. She finds that immigrants with similar degrees and individual characteristics relative to the Canadian-born are less likely to find work in high-skill occupations. She ar-

gues that unwillingness or inability of Canadian employers to recognize the education of these immigrants as equivalent to that acquired in Canada contributes to the non-transferability of skill sets. Bauer and Zimmermann (1998) examine the patterns of occupation mobility of ethnic German immigrants who entered Germany since 1984. They find that although high-skilled immigrants are more likely to experience deterioration in their relative labour market position upon arrival, they are able to reach their original occupational status significantly faster than low-skilled immigrants.

Pendakur et al. (2000) exploit a unique longitudinal data set extracted from administrative records held by the Public Service Commission to examine the extent to which there are differences in the career trajectories and promotion rates between employment equity and non-employment equity group members (i.e., women, Aboriginals, persons with disability, and visible minorities) in the public service. They find a substantial degree of segmentation within the public service, both for women and visible minorities. Specifically, they find that women, regardless of group membership, are tightly clustered around traditional clerical jobs. Visible minority men are also found to be strongly tied to the science and professional category, while white men are mainly found in executive, operational, and technical occupations.

Their results also suggest that the odds of getting a first (and subsequent) promotion vary substantially across equity groups, even after controlling for occupational category, years of experience, age, location of the job, level of the job (using salary quartile as a proxy), first official language, and months in the position. For example, in the science and professional category, women face substantially lower odds of getting a first promotion (ranging from 34% to 53% lower than white males). Aboriginal males also face a lower probability of getting a promotion. Their results also suggest that visible minority males

seem to do reasonably well as compared to their Canadian-born counterparts in terms of the probability of promotion which could be attributed to their high levels of schooling. They point out that since there are significant differences in terms of job mobility rates across different occupational categories, the observed occupational segregation found between different groups will mask differences in career movement rates across these groups when we focus on differences within occupations.

Focusing on multidimensional, cumulative, and path-dependent aspects of immigrants' labour market trajectories, Fuller (2011) uses the Longitudinal Survey of Immigrants to Canada to examine general patterns of immigrants' labour market integration as they unfold month-by-month in the initial four years after arrival. She identifies seven types of immigrant labour market trajectories (quick integration, delayed integration, redirection, study, exclusion, self-employment, and partial integration). She finds that these trajectories influence employment outcomes four years after immigrants' arrival in Canada although more strongly for wages than for occupational attainment. She emphasizes, however, that labour market integration does not occur via a single transition to employment.

Her results suggest that the pathway most indicative of "successful" labour market integration contains rapid entry into full-time continuous employment. "Quick integration" on the other hand is characterized by the greatest employment stability, the lowest risk of non-employment, and the highest likelihood of full-employment. She suggests that all else equal, immigrants who follow this path also typically earn the highest wages four years after immigration and are less likely to experience occupational degradation. Slightly less than half of immigrant men and 27% of women follow this type of pathway. Her study also highlights that promoting early labour force attachment is not al-

ways the best strategy. She shows that for a substantial proportion of immigrants, rapid entry into full-time employment does not work out, leading instead to a prolonged period of churning through other types of employment and non-employment activities. Such immigrants end up earning lower wages than those who delay entry into full-time work (often to pursue schooling), even though the latter tend to spend less time working overall. She suggests that for immigrants who do not immediately find good jobs providing support for longer job-search and/or educational upgrading might be beneficial and could potentially lead to better outcomes in the long-run.

## 5. THE EFFECT OF IMMIGRATION ON THE DESTINATION COUNTRY

### *5.1 Unemployment and wages*

Gross (1997) analyzes the extent to which British Columbia as a regional market is able to absorb immigrant workers with declining levels of skills in times of relatively high unemployment. She finds a positive relationship between immigration and short-run unemployment. However, her results suggest that this relationship is negative in the long run since immigrants create more jobs than they occupy. She also emphasizes the importance of screening by immigrants' skill level arguing that raising the average skill level makes immigrants more competitive in the search for jobs. She points out, however, that the aggregate impact in the long run is likely to be very small.

Using a longitudinal data set from the 1988-1990 Labour Market Activity Survey, Laryea (1998) analyzes the impact of foreign-born labour on wages in Canada by measuring the degree of substitutability and complementarity between natives and immigrant workers in Canada. He finds that overall foreign-born and Canadian-born workers are complements in the production process

which suggests immigrants have a positive effect on Canadian-born wages. However, when the data is disaggregated by industry, he finds evidence of wage suppression by immigrants in the primary, transport and storage, and wholesale and retail trade industries.

### *5.2 Health Care Utilization, Trade, Tourism*

Globerman (1998) examines the relationship between immigration and health care utilization in Canada. He finds that within the same age cohorts, there are no differences in the health care utilization rates between natives and immigrants. More specifically, he argues that there does not seem to be any marked tendency for individual groups of immigrants to systematically use more or less health care resources, on average, than other immigrant groups or the native-born. He, therefore, concludes that the overall impact of immigrants on health care financing depends primarily on the tax contribution of immigrants relative to native-borns. Using 1984, 1986, 1990, 1992, and 1996 Family Expenditure Surveys, Didukh (2001) compares the demand for health and personal care for immigrant and Canadian-born consumers. She also finds that the general level of health and personal care consumption is similar for immigrant and Canadian households.

Head et al. (1998) examine the effect of immigration on Canada's pattern of trade employing unique province-level trade data with over 150 trading partners over the 1992-1995 period. They calculate trade created per immigrant and find that, even in their most conservative specification, immigrants account for over 10% of Canada's export. They argue that this could be attributed to the fact that immigrants use their connections and superior market intelligence to create trade opportunities that non-immigrants would not have otherwise exploited.

Chen and Jacks (2010) examine the relationship between Canada's immigration and international trade in varieties—that is, the trade of particular goods from particular geographic areas. They explicitly consider the role of immigration in fostering the growth of international trade, arguing that immigrants are in prime position to facilitate this process due to their superior knowledge of good varieties, market conditions, and regulatory environments in their home country. Moreover, they potentially face lower opportunity costs of engaging in import activity in the host country. One of the main contributions of this study is the use of highly disaggregated Canadian trade data, especially with respect to the United States. They find that import varieties grew 76% from 1988 to 2007 which is associated with a welfare gain as large as 28%. They also find that 25% of this variety growth and its attendant welfare gains could be attributed to enhanced immigration flows.

Prescott and Wilton (2000) investigate the role of Canada's immigrant populations in determining the annual flow of visitors to Canada. Immigrant populations are found to have a strong influence in the annual flow of foreign visitors to Canada. Specifically, Prescott and Wilton (2000) estimate that the present value of the stream of spending by foreign visitors to Canada that is attributable to an additional immigrant is approximately \$4,500 in 1996 dollars.

### *5.3 Social Security*

Most of the industrial countries are facing economic problems related to population aging. An increase in the share of the elderly in the population also raises the cost of paying for pensions and health benefits which could subsequently have dramatic effects on government finances and potentially place the government's ability to finance other expenditures at risk. International

migration has been argued to be a mitigating factor for these problems. Casarico and Devillanova (2000) develop a theoretical model which describes the interaction between migration and social security as well as analyzing the sustainability issue and the joint redistributive impact of migration and social security. The main contribution of this study is that it describes migration not only as a demographic phenomenon increasing the number of contributors to the social security scheme but also as an economic shock perturbing the labour market and initiating inter- and intra-generational transfers.

Their results suggest that while migration alleviates the financial problems public retirement systems are experiencing, it also gives rise to serious redistributive conflicts exactly as other pension reform proposals like funding or privatizing do. In addition, they argue that instead of strengthening the support to the existing pension scheme via reduction in its solvency problems, migration can actually undermine it.

#### *5.4 Wealth Accumulation, Savings, and Asset Market*

The post-1977 rise in Canada's immigration intake was partially implemented on the presumption that immigrants could help increase Canada's relatively low private savings rate. Shamsuddin and DeVoretz (1997) focus on the role of immigrant households in Canada's asset market by investigating the potential differences in wealth accumulation behaviour of Canadian and immigrant households from 1977 to 1984. They also evaluate the impact of old age social security programs on the savings behaviour of these two groups. They point out that the period under study reflects a change in Canada's immigration policy which resulted in immigration flows switching from Europe to Asia. The empirical results confirm the existence of an inverted U-shaped wealth-age profile for both Canadian and immigrant households. The 1977 re-

sult suggests that the rate of wealth accumulation is higher for the immigrant household than the Canadian household in the pre-retirement years, potentially due to higher uncertainty experienced in a new country of residence. In addition, given limited access to old age security benefits and little or no parental wealth transfer prior to arrival, immigrant households dissipate wealth faster than the Canadian-born to finance their retirement consumption. The 1984 results, however, suggest that compared to Canadian-born households immigrant households accumulate wealth at a lower rate over the working life span and also dissipate wealth at a higher rate during retirement.

Shamsuddin and DeVoretz (1997) also find that Canada's social security program has affected immigrants and the Canadian-born differently. Immigrants exhibit a slightly greater displacement effect on personal wealth from social security wealth than the Canadian-born in 1984. They also find that the net effect of public social security programs on national savings was positive in 1984 which in turn suggests that public and private savings are not perfect substitutes due to the induced retirement effect. They conclude that this wealth effect should be recognized in Canada's immigration selection criteria.

### *5.5 Immigrant Expenditure Patterns*

Immigrants affect urban markets upon arrival and during their acculturation process. Werner (2000) analyzes the food consumption patterns of immigrants and the speed of convergence and divergence in immigrant consumption after arrival. He finds that consumption patterns as well as income and price elasticities differ by ethnic origin and arrival cohort for almost all major good groups examined. For some of the good groups, he finds a convergence in taste with the time-frame of convergence ranging from five to twenty years.

Geiger (2002) examines the demand for clothing and finds that foreign-born clothing demand is more responsive to prices and less responsive to income changes than Canadian-born demand. Other studies investigate the expenditure patterns of natives and immigrants on other items such as (public and private) transportation (Shahabi-Azad 2001) and household operations and furnishings (Wang 2001) and find substantial heterogeneity across the two groups.

Didukh (2002) studies homeownership and housing expenditure patterns of Canadian and foreign-born headed households. She finds that, on average, immigrant households are able to assimilate into homeownership and spend more on shelter than similar Canadian households. She finds, however, that low-income immigrant renters might be at risk in the housing market since their housing expenditures are below that of representative Canadian-born households' expenditures. She concludes that foreign-born households in general do not seem to need subsidies for housing, but specific subsidy programs could target some low-income immigrant households.

### *5.6 Public Finance Transfers*

DeVoretz and Ozsomer (1999) use a life cycle model and the 1995 Survey of Consumer Finances for Census Families to study the lifetime patterns of public finance contributions of immigrants and the Canadian-born in Toronto, Montreal, and Vancouver. Their study only uses selected financial measures since the SCF only contains a limited number of measures from the full set of both government transfers and taxes paid.<sup>3</sup> With these constraints in mind, they find that there exists substantial variation in public transfers across these

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<sup>3</sup> With respect to the consumption of government transfers, SCT does not include measures such as subsidized housing, healthcare, education, and the like. It also does not contain measures of the value of the consumption public goods such as parks, roads, and policing. The tax side also does not contain measures such as investment tax or property tax.

cities by foreign birth status. For example, they find that upon entry immigrants in Vancouver consume more public goods than the Canadian-born. However, the Canadian-born consumption exceeds that of immigrants in the post-retirement years. They also find that the consumption of monetized public goods also varies by year of entry. For instance, Vancouver's post-1986 immigrant households consumed twice the social assistance and unemployment insurance of earlier arrivals from 1965 to 1975. Finally, they conclude that with the exception of Montreal, all immigrant households make a positive net transfer to the treasury over their lifetime, although immigrants contribute less than the Canadian-born, and this transfer is more in Toronto and Vancouver than the national average. They also emphasize that this disaggregation by urban areas presents a different picture than the Canada-wide average which revealed little difference between the contributions of foreign-born and Canadian-born households. The results of DeVoretz and Pivnenko (2004) also confirm these findings.<sup>4</sup>

DeVoretz and Pivnenko (2005) focus on the implications of Canadian citizenship for the lifetime public finance contributions by naturalized immigrants. Similar to previous studies, they find that all immigrants, regardless of their country of origin and citizenship status, make a positive contribution to Canada's treasury circa 1996 over their life cycle. Naturalized citizens from OECD countries contribute the largest public finance transfers which even exceeds the contribution of Canadian-borns by more than \$14,000 over a lifetime. Naturalized citizens are also found to make a higher net contribution compared to their non-citizen counterparts regardless of source country.

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<sup>4</sup> The only exception is that DeVoretz and Pivnenko (2004) also find a positive contribution for immigrants in Montreal, while DeVoretz and Ozsomer (1999) had previously found a negative contribution. It should be mentioned that DeVoretz and Pivnenko (2004) use nine SCFs from 1989 to 1997, while DeVoretz and Ozsomer (1999) only use 1995 SCF.

DeVoretz and Pivnenko attribute the relatively poor public finance performance of non-citizens to their lifetime low income and low tax payments.

The Fraser Institute released a study (Grady and Grubel, 2011) that estimates the fiscal burden created by immigrants arriving in Canada between 1987 and 2004. They find that in the fiscal year 2005/2006 immigrants on average received an excess of \$6,051 in benefits over taxes paid, amounting to \$23 billion per year for the nearly four million post-1986 immigrants to Canada. Based on these numbers, Grady and Grubel conclude that “to curtail this growing fiscal burden from immigration” Canada’s immigration selection process should be reformed so the number and the composition of immigrants is determined by market forces and within a framework set and managed by the government. They note that their recommended policies would most likely decrease overall immigration flows significantly. In their study, Javdani and Pendakur (2011) identify some of the issues related to the internal and external validity of the study performed by Grady and Grubel. After correcting for errors and inconsistencies in the analysis done by Grubel and Grady, using a more appropriate reference and comparison group, using more accurate measures of the taxes paid and benefits received by immigrants and Canadian-borns, and taking into account that part of tax revenues go to support public goods and, therefore, immigrants reduce the per capita cost of providing these public goods, Javdani and Pendakur find fiscal transfers to immigrants from the Canadian-born ranging from \$450 to -\$397 per immigrant, which is significantly lower than the one estimated by Grubel and Grady.<sup>5</sup>

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<sup>5</sup> The estimated fiscal transfer to immigrants is sensitive to the assumed share of public goods in government revenues. Previous estimates of the public goods share range from about 5% to 20% of revenue. With a public goods share of 4.4% (the lowest reasonable estimate), the fiscal transfer from Canadian-born people to immigrants arriving between 1970 and 2004 is \$1,414. If this share is assumed to be 10%, the fiscal transfer drops to \$450, and if the share is assumed to be 15%, it further drops to -\$397.

Javdani and Pendakur also point out that an implicit assumption in Grady and Grubel's analysis is that any observed differences in average wages between natives and immigrants which subsequently generates lower taxes paid by immigrants and, therefore, smaller contributions, is due to lower ability or lower skills of immigrants relative to Canadian-borns. There is, however, a large body of literature in economics that attempts to explain the observed native-immigrant wage gap. The results of these studies suggest that differences in characteristics between natives and immigrants (e.g., education, labour market experience, age, knowledge of official language, number of children, occupation, industry, and/or firm affiliation) does not fully explain the existing wage gap between these two groups, and part of the observed wage disparity between them is due to disadvantages that immigrants face in the labour market. Javdani and Pendakur also emphasize that it is too hasty and naïve to prescribe radical changes to immigration policy using such a one-sided analysis that is solely based on fiscal costs/benefits of immigration and ignores a large body of research providing theoretical and empirical support for other benefits of immigration.

### *5.7 Social Relations and Remittances*

Remittances play a substantial role in the traditional economic development literature. DeVoretz and Vadean (2006) theorize that remittances to people outside the household represent transfers to maintain social relations with relatives and friends, and religious/charitable remittances are expenditures which foster group membership. Using Canadian survey data, they find that remittances to people are a normal good for recent Asian immigrants, suggesting close ties to relatives and friends. Given that recent Asians transfer a relative constant share of their income over their lifetime, DeVoretz and

Vadean suggest that these remittances to persons may also imply an implicit loan agreement with the extended family. On the other hand, remittances to people are found to be a luxury good for all other immigrants as well as the Canadian-born. Moreover, Asian households are the only ones that remit significantly more of their total expenditures to people upon arrival, relative to the Canadian-born, and their remittance behaviour does not converge to that of the Canadian-born over time.

## 6. IMMIGRATION PATTERNS IN CANADA AND IMMIGRATION POLICY

In the 1990s, a debate reemerged over the size and duration of Canada's transfer of human capital (or "brain drain") to the United States. DeVoretz and Laryea (1998) draw attention to the high costs associated with human capital transfers from Canada to the United States. They estimate that from 1967 to 1987 Canada received \$42.9 billion worth of post-secondary training from this period's immigration flow. However, during the late 1980s, human capital transfers to Canada declined as fewer skilled immigrants arrived and as highly skilled Canadian workers began to emigrate to the United States and Asia. They estimate that during the period 1982-1996 almost 54,000 highly trained Canadians emigrated to the United States with a declining compensating flow from the United States. They estimate the value of this Canadian transfer to the United States to be \$12 billion while the transferred Canadian taxpayer subsidy embodied in this movement was \$5.2 billion. They argue that a major economic incentive to emigrate to the US by highly trained Canadians was the educational taxpayer subsidy received before leaving Canada. They suggest that reducing the educational subsidy to Canadian emigrants and a more selective immigration policy which reduces the replacement costs might help in retarding the outflow. In addition, they also suggest that a more careful match

by Canadian universities of the Canadian supply and demand for highly skilled graduates could mitigate the outflow in the health sciences.

DeVoretz and Ma (2001) argue that in the early 2000s the brain drain patterns observed before began to be replaced by patterns that could be characterized as a brain exchange. This brain exchange implied that highly skilled immigrants were now often highly skilled temporary movers with a strategic plan. First, they choose to either acquire their education at home which is usually a less-developed country, or in a more likely scenario move to a developed country that supplies subsidized education. After spending time in the developed country to gain education or job experience, they either choose to remain, to return home, or move on to a third country. They argue that unlike the traditional neoclassical migration model which identifies disappointment as the only cause of return of highly skilled workers to their country of origin, movement of the highly skilled workers could be part of an investment decision to improve their lifetime income upon return to their home country.

DeVoretz and Itturalde (2000) extend the argument above by adding life-cycle features of the household (marital status, age, and dependents) to the simple earnings argument to predict whether highly skilled immigrants would stay or leave after they acquire their education abroad. They find that the probability of staying increases with age and with family size. Being married, however, reduces the cost of leaving. DeVoretz and Ma (2001) bring these various arguments together and add the role of the state to model and predict the complex movement patterns for a representative highly skilled immigrant household. They argue that the global system transfers human capital from sending countries (China and India) to entrepot countries (Canada and

Europe) and then on to the rest of the world (USA).<sup>6</sup> In particular, they argue that immigrants move to entrepot countries because they supply subsidized human capital and other free public goods. They also argue that Canada is an excellent entrepot example given its unique immigration and integration policies and its strategic geographical location.

DeVoretz et al. (2002) add empirical content to the model developed by DeVoretz and Ma (2001) by adding stylized facts and testing the predictions of the triangular movement model for an important case, the movement between Hong-Kong, Canada, and the rest of the world. They find that returnees to Hong Kong are more likely to be young and recent graduates from overseas institutions who are at the beginning of their careers. Apart from immigrants from developed countries, returnees are also found to have higher earnings than all other resident groups in Hong Kong. They also find that returnees have obtained more human capital than Canadian stayers and Hong Kong non-movers. They are also better educated, younger, and earn more than Hong Kong-born stayers in Canada. The authors argue that these findings confirm the predictions of the triangular capital transfer (brain exchange) model mentioned before.<sup>7</sup> DeVoretz and Zhang (2003) argue that this triangular movement is welfare improving for the migrants in the triangle and the taxpayers in Hong Kong, but not for the Canadian taxpayers. In their examination of socio-economic well-being of returned immigrants to Hong Kong, Tian and Ma (2006) also find results that are consistent with DeVoretz et al. (2002).

DeVoretz (2006) traces Canada's history of augmenting its human capital formation by recruiting immigrants and foreign students. He argues that the

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6 They define an entrepot country as an immigrant-receiving country that provides human capital to the immigrant before she/he emigrates.

7 DeVoretz and Pivnenko (2003) find that this model also explains internal migration decision for natives and immigrants in Quebec and elsewhere in Canada.

flexible and modern Canadian immigration policy has not been very successful in terms of being an engine of growth for Canada in the past. Many of the managers admitted from Hong Kong and Taiwan during the 1980s with the idea that they would use their managerial skills to expand employment opportunities in Canada either left in the 1990s for the US or returned home. In addition, Canada's heavy recruitment of engineers was less than selective since many of them had problems with credential recognition or did not meet Canadian standards. In terms of future policy direction, DeVoretz suggests that Canada should follow immigration policies more similar to Australia's policy by recruiting Canada's highly skilled immigrants from its foreign student population. This would alleviate the credential recognition problem and reduce the language and cultural barriers that some current immigrants face. He also suggests that Canada should combine its immigration program with rapid ascension to Canadian citizenship which will in turn accelerate the success of both worker immigrants and foreign students. He argues that reducing the time required to obtain Canadian citizenship from three years to two and counting the time spent in Canada under a temporary visa as part of the two-year eligibility requirement will both increase Canada's choice and number of immigrants. As suggested by DeVoretz and Pivnenko (2004), this will increase productivity for student immigrants when they self-select into citizenship.

## 7. PERFORMANCE OF DIFFERENT CLASSES OF IMMIGRANTS

### *7.1 Business immigrants and refugees*

Froschauer (1998) studies the performance of East Asian immigrant entrepreneurs in Vancouver. Since the 1980s, British Columbia has encouraged business immigrants and entrepreneurs from East Asia such as Hong Kong,

Taiwan, and South Korea to start new business ventures in BC. Given that a large fraction of employment opportunities in the province are in the service industries, this policy was pursued hoping that it would provide many Canadians with better jobs in the more lucrative goods production industries. Those who are trying to establish a business in a new country, however, will face new problems of language, investment, innovation, employment, and applying their foreign skills. Based on seventeen interviews with East Asian entrepreneurs in Vancouver, Froschauer finds that strategies used by these entrepreneurs to overcome business problems faced in Canada are ethnic business strategies. They tend to turn to co-ethnics for help when experiencing problems with language, business, capital, technology, and employment. He argues that these business strategies mainly result in co-ethnic employment practices and do not coincide with provincial preference for manufacturing and technology investment. They rather generate employment opportunities in less desirable service industries.

Using both interviews and income data from the IMDB, Ley (2000) also presents evidence that suggests the level of achievement by business immigrants is much lower than is frequently asserted. He argues that some of the reasons behind the poor performance of this program are its permissive approach to entry with low selection standards and lack of adequate resources to monitor the program, leading to abuses in the investor program and frequent scandals in the administration of investment funds in the past. In a second study, Ley (2005) uses a detailed face-to-face questionnaire with 90 entrepreneurs in Vancouver from Hong Kong, Taiwan, and Korea to examine the business performance of immigrants who entered Canada through the Business Immigration Program. He finds limited evidence in support of economic success among this group of immigrants, generating subdued satis-

faction and low returns. He finds that human capital, such as education and English competence, contributes to better performance of these immigrants. On the other hand, he finds that the class resource of the scale of available financial capital does not play an important role in economic success of this group of immigrants. Consistent with results of previous European studies, his findings also suggest that the ethnic enclave economy often offers meager opportunities, and the use of ethnic resources is usually associated with lower business performance. He also finds that the country of origin is a good predictor of economic success, with Koreans significantly more likely to leave the ethnic enclave economy and absorb into the mainstream market and, therefore, to experience more business success compared to business immigrants from Hong Kong and Taiwan.

Exploring the reasons behind the relatively more successful performance of Korean business immigrants, Ley (2005) suggests that one potential explanation is their more restricted economic transnationalism. He argues that transnational business linkages for business immigrants are not a strength but rather a distraction in terms of their Canadian entrepreneurialism and delay a sense of identity as a Canadian national. Ley reports that many business immigrants interviewed maintained their primary income-generating activities offshore and reported quality of life and education as the motivation behind their move to Canada. Korean business immigrants, however, are more likely to stop pursuing transnational business and instead pursue a model of economic integration with Canadian markets.

Hiebert (2002) exploits the Longitudinal Immigration Data Base (IMDB) to examine the relationship between immigrants' entry class and economic outcomes. He finds that compared to those immigrants who entered Canada as refugees or family members, economic immigrants possess much higher

human capital characteristics, earn higher incomes, and are more likely to be employed or self-employed. He also finds that within the economic class, business immigrants are less likely to participate in the labour market, and they also have lower incomes. His results also suggest that refugees in British Columbia have better economic outcomes than expected which he attributes to the enriched set of social services available to them upon their arrival.

Creese et al. (2006) argue that solely focusing on economic outcomes of immigrants entering Canada under the family member category might gloss over some of the potential benefits of this group of immigrants. They conduct interviews with recent immigrant families in two different neighborhoods in the Greater Vancouver area over a 5-year period during which they follow the paths of individual household members as well as the fortunes of the household as a unit. They find that households play an important role during the migration process and rather than being a problem are a significant help to immigrants successful integration.

Hiebert (2006) analyzes the general economic outcomes of Canadian immigration, mainly focusing on immigrants entering Canada using the point-assessed Skilled Workers Program between 1986 and 2001. He finds that those immigrants entering Canada under the SWP perform fairly well in the labour market. They reach earning parity with the average Canadian in two years for women and five years for men and, in some cases, they exceed the average earnings of Canadians after they stay in Canada for a few years. He argues that the two pervasive discourses regarding Canadian immigration, one describing it as fundamentally necessary and the other one as deeply flawed, are both misleading and provide a simplistic picture of a complex issue.

DeVoretz et al. (2004) use the Longitudinal Immigration Data Base (IMDB) to examine the economic performance of refugees in Canada between 1980 and 2001. Their results suggest that employed refugees earn an equal amount of income compared to independent and family class immigrants, both upon arrival and in each successive year of residence, which confirms that they experience economic integration in Canada similar to that of other immigrant groups. They also find some evidence that suggests privately sponsored refugees' earnings are higher than other refugee groups over the study period which could be potentially driven by more time and effort spent by private sponsors to help refugees in the labour market. They find evidence, however, that refugees are more dependent on social assistance, and those receiving any social assistance report very low incomes (less than \$12,000 in 1992 dollars). They also find that only 52 percent of refugees between the age of 20 and 64 found employment in Canada which suggests the economic performance of refugees in Canada is truly bimodal.

## *7.2 Temporary Immigrants*

Similar to many other developed countries, Canada imports temporary workers with different skill levels to accommodate short-term skill shortages in the labour market. The Canadian TFW program was initially designed to attract skilled workers. However, in July 2002, it was extended to all categories of occupations. Greenhill and Aceytuno (2000) analyze the Canadian Government-funded Seasonal Agricultural Worker Program which tries to organize the movement of foreign workers to satisfy the temporary or seasonal needs of agricultural sector. They argue that managed migration programs like SAWP facilitate the movement of foreign workers while enabling the gov-

ernment to have control over entry and the impact on the domestic labour market.

Gross and Schmitt (2009) study the economic impact of temporary immigrants from a different point of view. There is extensive evidence that suggests there are large persistent disparities across provincial labour markets in Canada. Gross and Schmitt (2009) examine the extent to which the inter-provincial divergence in unemployment rates could be attributed to TFW program. They find that part of the slowdown in the inter-provincial adjustment mechanism in unemployment is due to the expansion of the temporary foreign worker program to unskilled occupations in 2002. They explain that since the pricing of low-skill TFWs has been too low it discourages employers to seek workers from high-employment provinces before applying for authorization to hire TFWs.

There is also some opposition to the TFW program motivated by the argument that these temporary workers are competing with resident workers for jobs and, therefore, negatively affect their wage outcomes, jeopardize their promotion opportunities, and reduce the bargaining powers of unions. DeVoretz (1999) examines the economic performance of Canada's temporary worker program in the 1990s. He finds temporary immigration into the agricultural and unskilled service sector to be welfare improving for Canadians. However, he finds that in over 60 major industries, temporary workers lower wages of resident workers with similar characteristics or displace Canadian workers. He concludes that from a public finance point of view most temporary workers, especially skilled temporary workers, are welfare improving for the Canadian taxpayer.

Using a survey of resident construction workers in Greater Vancouver during the winter of 2008-2009, Kim and Gross (2009) investigate the main concerns of these workers with respect to TFWs. They argue that if negative perceptions regarding temporary workers and their impact on resident workers are common among resident workers, they could lead to discrimination, conflict, and hostility in the work environment. They find that a large proportion of the resident workers, particularly younger and unskilled workers, expressed concerns that TFWs depressed their wages and wanted to see fewer of them hired. They also find that resident workers tend to overestimate the size of the temporary foreign workforce which could contribute to these negative perceptions. They suggest that policies that enhance the monitoring of TFWs' job conditions and information about job availability in the construction industry could be helpful.

## 8. CONCLUSION

As the different studies reviewed above suggest, poor economic outcomes of immigrants, particularly visible minority immigrants, are quite concerning. This is especially true considering the fact that ever larger numbers of these immigrants are entering the labour market. Visible minority immigrants seem to experience higher than average measures of economic vulnerability (which includes employment, income, and poverty-related attributes). Looking at earnings differentials, visible minority immigrants seem to experience a large earnings gap with their Canadian-born counterpart which has become more pronounced for more recent cohorts of immigrants. There is also evidence that suggests upon arrival these immigrants seem to be crowded into lower-paying jobs relative to their Canadian-born counterparts, partly driven by their segregation into lower-paying firms. As they stay longer in the Canadian labour

market, their earning outcomes progress and they manage to move to higher-paying jobs which compensate part of the initial earnings gap they experience. However, they are still under-represented in high-paying jobs due to the glass ceiling effect that blocks their advancement to high-wage regions of the wage distribution. As a result, they never fully assimilate into the Canadian labour market, and their earnings never catch up with that of the white Canadians.

The causes and consequences of deteriorating immigrants' labour market outcomes are still hotly debated. Different studies provide different explanations for these poor labour market outcomes experienced by immigrants such as lower value assigned to education or labour market experience obtained abroad, language barriers and cultural differences, and discrimination that can take different forms. As the studies reviewed above suggest, these different factors partly manifest themselves in the way immigrants are sorted into different occupations and their occupational mobility which in turn contributes to their poor labour market outcomes.

Policy makers should be concerned about the lack of immigrant assimilation, because it implies that recent immigrants are not integrating into the Canadian labour market despite efforts to attract immigrants who will. This raises questions about whether immigrants can play a role in providing Canada with a source of highly skilled individuals to boost economic growth. It also has important implications for the use of government transfer programs, such as child tax benefits, social assistance, and income tax revenues. Cardozo and Pendakur (2008) point out that given the visible minority population is expected to increase dramatically over the next decade, such inequality in earnings will become even more important to combat.<sup>8</sup> They argue, however,

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<sup>8</sup> Projections of visible minority groups conducted by Statistics Canada in 2005 suggest that Canada's visible minority population will grow substantially by the year 2017. The majority of this growth will take place in Ontario and British Columbia, with specific concentration in the Toronto and Vancouver regions,

that current policies do not appear up to the task, and it is time to think about the kinds of government structure capable of addressing issues of diversity at the federal, provincial, and municipal level. Hiebert and Pendakur (2003) also note that given the complex nature of issues involved and the multi-causal nature of the problem, it is a hard task to define appropriate policy responses.

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and with some growth in various mid-size cities such as Edmonton, Calgary, and Ottawa. Given that on average the visible minority population will be younger than the white population (but not younger than the Aboriginal population) and that immigrants in general will be more likely to be of working age than the Canadian-born population, Canada will be increasingly reliant on both Aboriginal and visible minority groups to fill labour force requirements, particularly in Canada's large Census Metropolitan Areas (Cardozo and Pendakur 2008).

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