

**The Flow of Labour and Goods in
Canada's International Migration System:
1986-1996**

Ann H. Kim
Department of Sociology
York University
Toronto, Ontario, Canada
annkim@yorku.ca

Abstract

This paper reviews the theoretical and empirical implications of multiple linkages between countries for migration flows to Canada, from 1986 to 1996. The findings reveal that for a given year, social networks and export trade were the two key factors that determined the variation of in-migration flows across source countries. The examination of *change* in the migration system showed that changes in migration flows were more likely to be explained by changes in the level of development in origin countries and in the size of immigrant communities in the host country than by changes in the value of economic trade.

Key Words: immigration, world systems, social networks, political economy

Ann H. Kim

Résumé

Cet article examine les implications théoriques et empiriques des couplages multiples entre pays sur les mouvements migratoires vers le Canada, de 1986 à 1996. Les résultats démontrent que dans une année type, les réseaux sociaux et le commerce d'exportation étaient les deux facteurs clés qui ont affecté une variation des mouvements migratoires dans les pays sources. L'examen des changements dans les systèmes migratoires on déterminé que les changements des mouvements migratoires étaient bien plus souvent liés aux changements dans les pays d'origine et de par la taille des communautés immigrantes dans les pays d'accueil qu'à des changements dans la valeur du commerce économique.

Mots-clés: Migrations, communautés immigrantes, réseaux sociaux, commerce d'exportation

Introduction

Research on microlevel motivations for migration has improved our understanding of the determinants and consequences of population movement at this finer scale, yet the social, political and economic context in which these movements occur cannot be minimized. States and other institutions take on a major role in impeding or facilitating cross-border movement (Hollifield 1992; Mitchell 1989; Simmons 1989; Weiner 1985). For the current period, immigration is more likely to be a function of the social, economic and political relations between sending and receiving countries. Therefore, a more structural approach suggests that we should also expect to observe discernible patterns of population mobility across more generalized levels of analysis.

At an aggregated scale, international migration can be conceptualized as a system in which nation states are connected by streams of migrant flows (Kritz and Zlotnik 1992). The interconnections between states are not limited to people but also include capital, goods and services, and information. In this formulation, the conditions and quality of different ties affect the magnitude, composition and direction of the migrant flow. Applying a systems and world systems framework for understanding international migration, this paper reviews the theoretical and empirical implications of multiple linkages between countries for migration flows for one potential migration system, Canada. Presently, Canada receives international migrants from over 100 sending countries and the volume from each country varies over time. An assessment of the impact of intercountry relations and associated changes will provide results that will improve our understanding of how international relations and national development shape immigration flows.

Past Studies

Immigration to a particular country cannot be understood in isolation from the development of political and economic ties between that country and its immigration sources. However, this perspective has only gained momentum over the past three decades, with studies of international migration shifting from the examination of origin and destination states as discrete units analyzed independently, to those that conceptualize international migration as a dynamic process linking nation-states. The transnational approach in studies of international population mobility argues that the movement of people across geo-political boundaries is associated with other types of cross-border movement and that the structures that inhibit or facilitate movement are as important as the individual motivations that drive some to leave familiar places and others to remain.

In explaining the new immigration to the US from the Caribbean and Asia in the 1960s, Sassen (1988) argued that direct foreign investment in these regions disrupted traditional work structures, feminized the workforce and consolidated objective and ideological linkages. As a result of the structural changes that impacted work opportunities and the supply of labour, a pool of potential emigrants developed and emigration became a viable option (Sassen 1988). Coupled with an increased demand for low-wage labour in the US, the large influx from these regions was to be expected.

In accordance with Sassen, the examination of the Mexico-US tie in the context of NAFTA lead Martin (2001) to conclude that while free trade may be a long-term solution to alleviating migration pressures, it actually resulted in a short-term migration surge due to the consequences of economic integration and demand for migrant labour in the US. However, going beyond Sassen, Martin (2001) argued that established migration networks were necessary to facilitate this movement. Fernández-Kelly and Massey (2007) also find a link between the economic policies of NAFTA and increased labour flows. They contend that the liberalization of trade and capital across the Mexico-US border coupled with more restrictive border control have lead to an increase in the permanent settlement of Mexican migrants in the US.

The importance of transnational economic exchanges on the impact of migration flows (and *vice versa*, see Blanes and Martín-Montaner 2006) has been demonstrated in other regional systems as well. Taking the migration system consisting of France and Africa, Garson (1992) showed how it emerged out of a generalized system of bilateral relations. France's attempt to curb immigration in 1974 was unsuccessful precisely because of the bilateral trade agreements which allowed quasi-free migration from the former French colonies in Africa (Garson

Ann H. Kim

1992). Although the largest supplier of trade to the African continent, the linkages did not end there. French nationals continued to maintain ties to African countries through military assistance, construction projects and settlement in the 1980s (Garson 1992). His analysis revealed the complex terms of interdependence within a migration system that does not award any one nation complete supremacy in border decisions.

While these case studies provide rich insight into the underlying mechanisms of international population mobility in an historical context of increasing capital and commodity mobility for a particular set of countries, they exclude other migrant-contributing nations and the potential to tap into other processes that may be operating in the system. No one will contest the well-known fact that immigrants from Asia, the Caribbean and Mexico comprise the largest share of incoming migrants to the US in the recent period, but the United States receives immigrants from many other parts of the world.

A cross-national study of the determinants of immigration from 137 sending countries to the US (Yang 1996) demonstrated that the level of development of sending countries, social networks and bilateral relations were important predictors of in-migration. Specifically, modernization and political freedom in sending countries directly reduced immigration while economic and cultural involvement of the US and the size of the ethnic community directly increased it. Economic growth of the origin country, US military involvement and emigration policy were not found to have significant effects (Yang 1996).

Others have also found certain conditions within sending countries, such as economic development and population size, affect migration behaviour (Carlos 2002; Peridy 2006; Vogler and Rotte 2000). The relationship between economic development and migration to Germany in Vogler and Rotte's (2000) analysis was characterized as an inverted u-shape such that as a developing country increased its level of GNP, their migration rate increased in the short-run and then decreased. This concurs with Martin's (2001) concept of the migration hump in the short-term and with the argument that over the long-term, migration will dissipate with economic parity across countries. However, in contrast to Yang (1996) and Light, Zhou and Kim (2002), Vogler and Rotte (2000) did not find a significant effect of trade on migration flows. Part of the explanation may lie in the different measures of economic relations applied in the three studies. Inconsistent effects of trade also suggest that the effect of ties may vary in migration systems as some ties are stronger predictors for some systems.

Although the cross-national approach is limited in its ability to identify the historical development of unique migration paths within a system, it does allow us to examine broader patterns of relationships and to include other explanatory

variables. In her analysis described above, Sassen (1988) acknowledged that direct foreign investment was just one part of the story and that there were other important factors at work. Furthermore, if bilateral economic relations are essential components of a generalized migration system in the post-industrial period, then one should observe systematic associations for other countries within the system.

Massey, Arango, Hugo, Kouaouci, Pellegrino and Taylor (1998) presented the US and Canada as the core of one North American migration system and acknowledged that Canada received a large proportion of immigrants relative to its population. They highlighted Canada's role in the immigration system yet placed it secondary to the US through the literature they reviewed. Nevertheless, Canada's distinctive history of nation building justifies a separate examination. In one illustrative study of linkages between Canada and 66 countries, Simmons (1989) found sending country conditions, ethnic communities, sponsorship, and linguistic and refugee ties to have significant effects on the magnitude of immigrant landings. Simmons argued that cultural and ideological linkages were as important as economic ones and advocated for a multivariate, quantitative model that incorporates data from both origin and destination states.

Simmons' analysis suggests that the migration system approach is valid in the Canadian context. However, despite interest in linkages between countries, he omitted a key economic linkage, that of trade relations. The current paper adds to his results as well as other past studies by accounting for economic conditions and linkages, and social and political ties. This analysis also includes more countries in the analysis and examine change over time. The objective of this study is to further our understanding of the migration system by testing its applicability in a different temporal and spatial context. Given that the foreign-born comprised 17 percent of the Canadian population in 1996 and over 150 countries were represented in immigration statistics, Canada's experience will be informative.

Conceptual Framework

Going beyond traditional demographic perspectives of migration that isolated the movement of people from other social and political realities, the systems perspective underscores the multitude of links forged between places. It provides an appropriate overarching framework with which to contextualize mobility and to gain an increased understanding of how population movement shapes and is itself shaped by other processes. The systems framework is characterized by the concept of equilibrium, where a change in one part of the system is matched by adjustments in other parts (Fawcett 1989).¹ In other words,

Ann H. Kim

migration flows do not take place in isolation but may be triggered by other types of exchanges. And this is one of the first aspects for consideration in a systems analysis; to identify the appropriate types of flows (Nogle 1994). Trade, capital investment and information (through networks) have been identified in the literature as three other types of flows that impinge upon migration behaviour by altering economic structures and cultural norms.

A second consideration under the systems approach lies in the delineation of a system (Nogle 1994). Kritz and Zlotnick (1992) identify the basic migration system as any two countries with a relatively large migratory exchange but suggest that the ideal analysis would include all countries linked by large migration flows and include temporal and spatial dimensions. A full analysis of Canada's migration system would include Canada and all other relevant countries that exchange large numbers of migrants with one another. This more inclusive network of states would allow a comparison of the dynamics of migratory processes to competing destinations and determine how other types of linkages factor into these dynamics. However, the limited availability of economic and migration data for the entire network of countries that exchange labour precludes this more complete analysis. Nevertheless, there are some lessons to be gained from a more restricted analysis and this current investigation purports to provide some insight into the migration system within which Canada is embedded by examining the one-way flows of migrants into Canada. This partial view will prove informative of the some of the effects of multiple linkages on labour flows into Canada, a topic of interest to immigration researchers and policy-makers alike.

One of the criticisms against the more general systems perspective is its assumption that power is equally distributed to all component parts of the system. Yet, in a given system, some parts are more vital to its existence than others, and some parts are more dominant. This is where the concept of equilibrium in the systems perspective is challenged. Labour flows between places do not result in zero net migration and the systems approach fails to explain the imbalances in certain types of flows and to predict their direction. That is, it offers no specific hypotheses.

The world system theory argues that nation-states occupy a class position within the world capitalist economy and that the unequal exchange between countries results in some countries reaping the benefits of surplus value (Portes and Walton 1981; Wallerstein 1974). This incursion of foreign capital and asymmetric relations between countries suggest that some countries are in better positions to exploit labour. The demands for cheap labour in Canada's economic system draws immigrants from abroad into a split domestic labour market (Mata and Pendakur 1999) which relies on the continual recruitment of new

*The Flow of Labour and Goods in Canada's
International Migration System: 1986-1996*

immigrants. Simmons (1989) also argued that the complex system of international connections calls for a world system-linkage model. Due to Canada's position in the division of labour in the world economy as a core country that receives a net flow of international migrants and engages in the acquisition of foreign markets through capital investment and trade, we should expect to find that an increase in direct investment and trade over the period should be associated with an increase in international migration (Massey, Arango, Hugo, Kouaouci, Pellegrino and Taylor 1998).

Although the world system may be conceived of as one unit of analysis, in this system of intercountry migration links, states are also important units of analysis since migration has become important in the arena of international relations (Hollifield 1992; Mitchell 1989; Weiner 1985). The nature and context of international migration – entry and exit regulations, adoption of a different national membership, etc. – underscores the importance of the actions of nation-states in migration processes. Furthermore, world system theory and development theory both argue that the conditions in sending countries matter as well. World system theory emphasizes the core-periphery distinction and development theory highlights economic development and growth as key factors influencing migration patterns. Hence poorer conditions in sending countries should be associated with larger migration flows and conversely, improved conditions should be associated with decreased flows.

As this conceptual framework highlights, the variation across time and space in the numbers of immigrants may be attributed to conditions in sending and receiving countries as well to bilateral social, political and economic relationships. The next section sketches a short historical context for the empirical study of Canada's immigration system.

Brief Overview of Canada's Immigration History

During the period of colonial expansion by both France and Britain, migrants from each country added to the population of First Nations people already living on the continent. After the war between the English and the French in late 18th century America, Canada emerged as a colony of the British Empire and as with other countries in the early stages of colonization, British emigrants flowed into Canada. At this historical juncture, migrants flowed in the same direction as capital, engendered by the idea that emigration would strengthen the British economy by opening new markets and relieving population pressure (Portes and Walton, 1981).

Ann H. Kim

In Canada's nascent development, there is evidence of the impact of international political ties on its demographic composition. For example, as part of the *Treaty of Nanking* in 1842, an agreement between Britain and China, subjects were provided access to each other's lands, which included Canada. After Confederation in 1867, Canada was comprised of mostly British and French settlers and Aboriginal Peoples but also included Chinese and Japanese immigrants in the province of British Columbia. These Asian immigrants were actively recruited by various companies on the west coast.

While Canada's immigration history is tied to the experience of British colonialism, it can also be understood in relation to the intergovernmental links between Canada and other countries and to the institutional forces that governed population movement in an era of industrial expansion. Two processes that lead to the shifting of migrant flows away from Britain in the early 20th century have been identified, progressive autonomy from English capital (Portes and Walton 1981), and the reduced numbers of potential English migrants due to industrialization and competition with other British colonies. This impelled the Canadian government and companies to look elsewhere to augment the labour pool.

Until 1962, the regulations defined desirable immigrants based on nationality and they have since moved to individual-level criteria partly due to a sense of injustice in national-level distinctions but also due to the reduced flows from traditional European sending countries. The Canadian government outlines social, demographic and economic objectives in its contemporary immigration policy and it continues to actively recruit candidates with skills in high demand domestically to meet these objectives. The points system utilized by immigration officials for non-asylum seekers rewards desirable individuals for their level of human and financial capital. Hence, despite "open door" policy changes, equal flows across space will never occur as long as states play an active role in managing population movement across borders.

Equal flows also do not take place over time. Although massive fluctuations in numbers have not taken place from one year to the next, greater changes can be detected over a longer period. Figure 1 traces the trend in migration flows from 1980 to 1996. In this relatively short window on the history of migration, the year of 1986 marked the end of a downward trend and the beginning of an upward one in total immigration to Canada. Simmons (1992) attributes this to the immigration policy that restricted in-flows in the 1980's as a response to the economic recession and then expanded economic, family and humanitarian targets in the late 80's and early 90's. An analysis of the period 1986 to 1996 then occurs in a context of increasing immigration.

Data and Methods

The unit of analysis in this study is the nation-state and indicators on each country have been compiled from several sources including Citizenship and Immigration Canada Statistics, Statistics Canada, the World Bank World Development Indicators and the United Nations Development Programme – Human Development Report. Data sources for particular variables are provided in Table 1. While all attempts were made to obtain origin country statistics from 1986 and 1996 and from one source, the World Development Indicators, the sheer number of missing cases required the use of supplemental sources in addition to relying on 1985 and 1995 indicators to fill in some of the gaps for 1986 and 1996, respectively.²

After omitting cases with missing values after imputation, 117 cases remained for the analysis. A list of countries, numbers of immigrants and their respective changes in flows are presented in Appendix A. The number of cases comprise about half of the over 200 countries listed in the Citizenship and Immigration tables yet these 117 countries represent the majority of the newcomer population, 93 percent of the total 1986 inflow and 85 percent of the 1996 inflow. Thus, not only has immigration increased during this period, the migrant stream has also become less concentrated and more diverse.

Model

To test the above propositions, two data points in time are included, 1986 and 1996. While a time series analysis would provide a more complete and systematic picture, this analysis is offered as an initial investigation. The first estimated models are cross-sectional and take the following form:

$$Y_i = \alpha_{0i} X_{1i}^{B_{1i}} X_{2i}^{B_{2i}}$$

where i is the nation-state. In logged form, it follows the linear relationship:

$$\ln(Y_i) = B_{0i} + B_{1i}(\ln(X_{1i})) + B_{2i}(\ln(X_{2i})) + \dots$$

Subsequently, the first-difference model is applied to examine change from 1986 to 1996 and is estimated based on the expression:

$$\Delta Y_i = B_{0i} + B_{1i}(\Delta X_{1i}) + B_{2i}(\Delta X_{2i}) + \dots$$

where Δ is the change in the logged values of the X's from t_1 to t_2 .

Ann H. Kim

In the first-difference model, each proportional change in the difference results in a proportional change in the difference of Y.

Variables

As the focus of the paper is on immigrant flows from each country for 1986 and 1996 and the change in flows, the number of immigrants by country of last permanent residence and the change in number of immigrants from 1986 to 1996 are the dependent variables and are logged in the regression models.

The independent variables were selected on the basis that trade flows, networks and sending country conditions should predict migration flows. Export and import values (logged) were the key explanatory variables as these components are directly linked to economic relations between Canada and other countries. Export and import values were estimated from the value of goods that crossed the Canadian border and while these estimates do not provide a complete valuation of bilateral economic relations, they are the best indicators available and have been used by others, which permits some comparability.

Data on Canadian investment abroad were incomplete as information on all countries were not available. Despite the 1995 data and a preponderance of missing values on this key explanatory variable, it was included in the original models with zero values for the missing cases and a dummy-coded variable to indicate presence or absence of these data. In the end, it was omitted as it did not significantly improve the fit of the model. However, the effect of this variable may be worth examining in the future with more reliable and complete data.

In the models, immigrant networks and source country economic and living conditions are controlled. Migration in the contemporary period cannot be understood in isolation from the networks that have formed among people across national borders, and the number of immigrants in Canada by place of birth is offered as a measure of this. Although more than half of the cases for 1986 were missing data on this factor, it remained in the analysis after imputation. Gross domestic product (GDP) per capita, population size and population density were also control variables as countries differed significantly in terms of their economic and demographic conditions.³

A Static View of Canada's Immigration System

A preliminary examination of how flows of people might be related to other types of movement in Canada's migration system is examined in Table 2. The top five sending countries for each year of the two years in this study, 1986 and 1996, and the top five countries of trade and direct investment demonstrate some association between migration flows and trade and investment relationships, but not always in expected directions. Countries listed in the far-left column that appear in any of the three adjacent columns have been printed in bold. The US was the top country in all categories in 1986 and remained the top country in Canada's trade and direct investment network in 1996. That same year, the US fell out of the top five to eighth place with respect to migration. Furthermore, while trade and investment with the US increased by the greatest magnitude over the period, migration flows actually *decreased*. In contrast, China presents a picture closer to expectations. China's prominent role in Canada's network was not observed until 1996 (at least in terms of this study), when it was the third largest supplier of human capital and the fifth largest trade partner with Canada. The increase in flows of people from and goods exchanged with China reflects the expected multiple linkages between countries within the migration system.

Canada's relationship with the US and China provide a unique test of the theories that shape our understanding of relations between countries. Without diminishing the contribution of case studies, the intent of this study is to try to expose some of the patterns in the network as a whole.

Descriptive statistics are presented in Table 1, which displays the means and standard deviations based on the natural logarithms of the variables. The average country in the sample almost doubled its numbers to Canada, from 792 emigrants in 1986 to greater than 1,500 in 1996. During this period, the scale of immigration changed as well, as evidenced by the magnitude of flows from the top source country, 7,275 in 1986 (USA) to 29,966 in 1996 (Hong Kong) (see Appendix A). About one quarter of countries in the sample experienced decreases from 1986 to 1996 but the majority of countries increased their migration flows. The average decrease was in the range of 660 people and the average increase was over 1,300.

Increases in exports are also observed over the period, consistent with the government's shift toward more "open" trade policies in the 1990s (Simmons 1999). Export trade with the US more than doubled from \$903 million to \$2,100 million and also with China, from \$11 million in 1986 to \$27 million in 1996 (Table 1 shows logged values). Import trade also increased dramatically, at a

*The Flow of Labour and Goods in Canada's
International Migration System: 1986-1996*

greater rate with China (\$6 million to \$49 million) than with the US (\$773 million to \$1,573 million).

The cross-sectional models predict the proportional change in the numbers of immigrants from each country for each year, 1986 and 1996, and they provide information about the types of countries from which we can expect greater flows. Results from the OLS regressions are presented in Table 3 and they reveal that in 1986, countries with higher population densities sent a greater number of immigrants, net of GDP per capita, size of the co-immigrant community and trade relations. This association remained significant ($p < 0.10$) ten years later. The size of the co-immigrant network was also positively associated with migration flows in both years. Consistent with expectations about social networks, countries with large communities represented in Canada send large numbers of migrants. With family re-unification provisions and the critical mass of a supportive community to ease the settlement process and to foster the acquaintance of potential immigrants to Canada and its habits through transnational movements, the significance of social networks is not to be underestimated.

Interestingly, the indicator of economic development in sending countries did not appear to have a significant effect on migration flows, net of the other covariates. However, a reduced model (not shown) with just the three covariates on sending country conditions demonstrated a significant positive effect of GDP per capita ($p < 0.05$). The results of the expanded model show that the effect of GDP can be explained by differences in trade relations between Canada and partnering countries as Canada tends to have greater trade relations with more developed countries.

Irrespective of community size and sending country conditions, flows of goods out of Canada also appear to influence streams of population movement into its borders. The value of exports between Canada and its trading partners was positively associated with the flow of labour in both years and this association was significant. In general, countries with which Canada had greater values of export trade were also countries from which many people came. Conversely, countries lacking a demand for Canada's products were also places sending lower volumes of migration flows to Canada. Furthermore, not all types of trade relations seemed to matter for predicting cross-national variation in population in-flows as the value of imports did not provide any additional explanation of this variation.

*The Flow of Labour and Goods in Canada's
International Migration System: 1986-1996*

Countries more familiar with Canadian goods seem to be supplying labour to the production and distribution of those goods but countries sending goods to Canada were not sending their people. Light et al. (2002) explained this discrepancy in the US migration system as resulting from the embeddedness of transnational migrants in US markets. Essentially, immigrants are needed as middlemen for US firms in the international arena because Americans lack language skills. The dominance of English as an international language encourages learning by foreign entrepreneurs selling their products while it suppresses the motivation for American businesses to acquire a second language (Light et al. 2002).

This may be applied to Canada. Increased trade activity in the form of exports requires the recruitment of native speakers as well as those who have cultural capital and business ties in the origin country. This may explain the lack of significance found in immigrants arriving from officially English or French speaking countries. Due to the growth of trade in non-English and non-French speaking parts of the world, Canada now requires the cultural, linguistic and networking skills of non-English/French speakers.

A second explanation for this discrepancy can be found in an economic argument as well. Increased economic activity and production of goods imported to Canada may be suggestive of increasing economic opportunities and mobility in a sending country thereby leading to a diminished pressure to migrate. Furthermore, increased exposure to Canadian goods may lead some to believe there are improved prospects overseas. Finally, the extent to which firms in Canada engage in the active recruitment of foreign labour should not be overlooked.

The continued importance of export trade relations and co-immigrant networks from 1986 to 1996 suggests that social and economic relations between Canada and other nations provide additional explanatory power over and above push factors in sending countries. In 1986, the covariates explained over 70 percent of the variance in cross-national flows and in 1996, the adjusted R^2 decreased but remained statistically significant at 58 percent.⁴ The common pattern of associations in 1986 and a decade later provides evidence of the stable nature of migration processes.

These cross-sectional models provide a good indication of the characteristics of countries that are associated with migrant flows in a given year, yet it limits the ability to make inferences about changes in flows over time. With the estimated cross-sectional models we may come to a tentative conclusion that increased export activity would result in increased immigration, but lacking a time series analysis, we are unable to make reliable generalizations. The migration system

plays out as a dynamic process and the next section attempts to capture this. Although it is not as empirically powerful as a time series analysis, the temporal dimension does offer an improved assessment of the effects of change.

A Dynamic View of Canada's Immigration System

Table 4 displays the results of the three nested models of the differences in logged migration flows from 1986 to 1996. Model 1, with push factors alone, demonstrates that for the average country, an increase in its GDP per capita over the period lead to a decrease in emigration to Canada and that countries with greater increases in economic development experienced greater decreases in labour outflows as hypothesized. The direction of this association also suggests that a decrease in the level of GDP per capita for a given country will result in an increase in flows. This pattern was maintained despite controlling for changes in social networks (Model 2) and trade relations although it appeared to weaken once export and import values were added in Model 3. Generally, this result appears to be consistent with the cross-sectional models that revealed negative but not statistically significant associations between the level of economic development and migration flows once trade relations were controlled.

The effect of internal economic development on migration streams is supported elsewhere (Carlos 2002; Vogler et al. 2000). Although no measure of relative economic disparity with Canada was included in the model, the results do not contradict the claim that decreasing differentials between countries will lead to decreasing labour flows to developed regions (Martin 2001). As long as Canada continues to believe that domestic economic growth can only come about through its own population growth and migration is needed to meet these demographic goals, Canada will continue to have a stake in existing economic inequalities.

Similar to the cross-sectional models, the effect of co-immigrant networks emerged as a significant predictor of changes in migration flows in the first-difference model (Models 2 and 3). Model 3 shows that a large increase in the *change* of co-immigrant communities was associated with an increase in the *change* of migration flows, controlling for push conditions and trade relations. In accordance, large decreases in network members over the decade were associated with large decreases in migrant flows. These results also appear to conform to the cross-sectional models.

Ann H. Kim

Standing out in contrast to these initial estimates of migration flows, changes in trade relations did not have a significant effect on changes over the decade, against our expectations. Increases in exports and imports over the period appeared to have only a marginal effect on changes in migration flows and failed to provide a statistical improvement over Model 2. This suggests that while the magnitude of export trade may make a difference, change over time may not.

Discussion and Conclusions

The findings from the cross-sectional models suggest that factors predicting the volume of immigrants have remained fairly stable in the post-industrial period. For any given year, the size of extant co-immigrant communities and the value of exports are the two key factors that determine the variation of in-migration flows across countries. To test the hypotheses about changes in the migration system, how changes in trade activities and foreign investments affected migration streams were examined by estimating a first-difference model. This empirical model did not furnish the expected results given our understanding of the (world) systems perspective. Rather, it informed us that the changes in the level of development in sending countries and in the size of immigrant communities were significant elements in explaining the variation in migration changes.

Shifts in the flow of trade and investments did not appear to matter in Canada's migration system. Does this suggest that Canadian capital investment is not disruptive of local economies and that it does not operate in the way world system theorists claim? Sassen (1988) argued that in understanding US immigration, the total amount of foreign investment mattered, not the source. Others have also pointed to the importance of foreign capital penetration in the operation of the world system (Dixon and Boswell 1996).

Since total foreign investment or penetration in sending countries was not examined, it is not possible to attest to the validity of this argument but offer it for future investigation. A second possible explanation relates to problems with data. Unfortunately, the use of imperfect data prohibits firm conclusions on this aspect of the migration system.

The geographic dimension of changes was an omitted feature in this analysis and its justification is depicted in Figure 2. The lack of a systematic pattern or geographic concentration illustrates that spatial distance did not appear to have a significant influence on migration decisions to Canada. In the graph, those

Ann H. Kim

countries classified as decreases represents declines of more than 50 persons, stable countries are those countries that changed relatively little in flows, from - 50 to 50 persons and increases represents a rise in flows of more than 50 persons.

A second dimension not distinguished in the analysis is the type of migration. Mitchell (1989) argued that refugee flows should not operate differently from other types of migration flows, however, the large proportion of refugee migration to Canada – greater than 10 percent of the 1996 flow - may explain the lack of support for the systems perspective. One would expect economic relationships between countries to have an effect on economic mobility and a future study might consider disaggregating migration flows by type to build on this and Simmons' (1989) analysis, which found predictors varied for the type of flow.⁵ A final dimension that is most salient for world system theorists is the distinction between developed and developing countries that was not considered in this analysis but could be included in future studies. The effect of economic changes may only be relevant for developing countries since they occupy different geo-political positions on the world market.

The results gathered from this analysis demonstrate that bilateral social and economic relations explain migration patterns for Canada and also that demographic conditions in sending countries continue to be important for any given year, although this appears to be diminishing in the more recent period. With respect to trade, distinguishing the kind of trade activity is important for understanding international population movement. The volume of exports appeared to affect migration streams but not imports. The change in trade activity was also not important in predicting changes in flows. Therefore, changes in trade relations do not provide much elucidation on changes in the tide of migration but those countries that rely on large values of Canadian goods are also those countries that are sending more numbers of people. The amount of trade seems to have greater implications than the relative growth or decline in trade. Tracing the pathways of the development of trade relations between Canada and its suppliers of population should provide a more nuanced understanding of the implications of economic partnerships. Migration systems are dynamic systems and it may be the case that different factors take prominence at various points in the pathway of a bi-national relationship. For instance, economic relations may initiate a population movement (i.e. start the migration “faucet”) but networks may be the key to maintaining, increasing, or decreasing the flow.

Controlling for levels of trade activity, economic conditions do not explain cross-national differences in migration flows. However, improvements in economic conditions in sending countries contract migration streams and

deteriorating conditions expand them. Finally, social networks were the most influential in explaining migration streams across countries and over time, lending support to the idea that different forces affect flows over time. This offers tremendous support for social networks, through a process of cumulative causation, as being one of the key driving forces behind contemporary migration streams.

With regards to policy considerations, policy-makers must bear in mind how past immigration streams affect future ones and should now be able to anticipate future streams based on emerging and established ethnic communities already in Canada. In addition, this study reveals that changes in economic activities will affect flows of labour, and emphasizes the importance of congruous policies across sectors. As Fernández-Kelly and Massey (2007) point out, a more permeable border in trade is inconsistent with a restrictive border to labour and can lead to unforeseen consequences.

There are ample avenues for future work including case studies on Canada's relationship with particular countries, namely, China and Hong Kong or India. The unique case of China is underscored by its enduring political and economic link with Canada, by the long history of migration as well as by the magnitude of migration in recent decades. Finally, an important structuring feature of Canada's migration system is proximity to the US (Clarke and Smith 1996). How the US figures into Canada's migration system beyond its role as a source country would shed further insight on the migration systems perspective and whether it will continue to be a useful approach to understanding migration processes.

In the end, this analysis is offered as an initial effort to understand how bilateral social and economic links in Canada's international migration system affect population flows. Beyond the particularities of this test case, the results shed light on migration systems in general. Social and economic linkages are important features of international population movements in addition to push and pull factors. The results also imply that for nation-states, trade and immigration policies cannot be at odds but must be integrated and coherent.

Acknowledgements:

A earlier version of this paper was presented at the 2002 Canadian Population Studies Meetings in Halifax, NS, and won Best Student Paper. The author would like to thank Michael J. White, José Itzigsohn, David P. Lindstrom, Monica Boyd and three anonymous reviewers for their helpful comments and suggestions.

End Notes:

1. At its most basic interpretation, the concept of equilibrium in migration predicts that states within a closed system will tend toward zero net migration. Schachter and Althaus (1989), in fact, argue that migration is a response to variations across regions and develops an equilibrium model. The purpose of this study is not to test the validity of this concept but to show that when there are changes in one part of the system, we should observe changes in other parts.
2. Missing data on most of the independent variables (GDP per capita, population density, the size of co-immigrant networks, and import values) were imputed by regressing data from one year on the other. Similar to many studies of migration, the use of nation-states as a unit of analysis presents another major concern, that of reclassification, especially in the examination of change over time. The geo-political construction of national borders renders them susceptible to change and within the period under examination, the boundaries and sovereignty of several nation-states had been modified. The former countries of South and North Yemen, Yugoslavia, East and West Germany, Czechoslovakia and the USSR and their new offspring were excluded from the analysis due to the lack of comparability over time and in the data. There were no indicators for Taiwan from the World Bank and consequently, it was also excluded.
3. Other controls included infant mortality rate, proportion urban, life expectancy and numbers of television sets per 1000 inhabitants but these variables were found to be highly collinear with the others and were subsequently omitted from the analysis. Some have argued that another important link is the socio-cultural connection and Canadian immigration policy also favours this connection by awarding additional points to those who can speak at least one of its official languages. However, a dichotomous measure of the linguistic tie (i.e. neither official language or at least one official language) did not add any predictive power to migration flows and was also omitted from the models presented.
4. Part of this decrease in the variance explained may be accounted for by the lower proportion of the in-migration flow captured in the 1996 sample. Since the range of countries included in the study is more limited for the 1996 migration period, the model may be less predictive.
5. Some attempt was made to differentiate types of migration streams. First, a dichotomous variable of high refugee-sending countries (greater than 50 percent of landed residents) was included in the static models and

revealed a statistically significant positive association with in-migration flow. An increase in the percentage of refugees was also positively associated with an increase in flow. However, this specification does not further our understanding of how refugee flows may differ from primarily economic ones (i.e. the sample size precludes the modeling of interactions) and due to collinearity with GDP per capita, this variable was excluded. Additional tests were run with restricted samples that omitted countries considered to be high on this variable. In the end, the results did not change and the refugee-sending countries remained in the final model.

References:

- Blanes, José V. and Joan A. Martín-Montaner. 2006 Migration flows and intra-industry trade adjustments. *Review of World Economics*, 142(3): 567-584.
- Carlos, M.R.D. 2002. On the determinants of international migration in the Philippines: An empirical analysis. *International Migration Review*, 36(1): 81-102.
- Clarke, Harry R. and Lee Smith. 1996. Labor immigration and capital flows: Long-term Australian, Canadian and United States Experience. *International Migration Review*, 30(4): 925-949.
- Dixon, William J. and Terry Boswell. 1996. Dependency, disarticulation and denominator effects: Another look at foreign capital penetration. *American Journal of Sociology*, 102(2): 543-562.
- Fawcett, James T. 1989. Networks, linkages and migration systems. *International Migration Review*, 23(3): 671-680.
- Fernández-Kelly, Patricia and Douglas S. Massey. 2007. Borders for whom? The role of NAFTA in Mexico-U.S. migration. *The Annals of the American Academy of Political and Social Science*, 610: 98-118.
- Garson, Jean-Pierre. 1992. Migration and interdependence: The migration system between France and Africa, in Kritiz, M.M., Zlotnik, H. and Lim, L.L. *International migration systems: A global approach*. Oxford: Oxford University Press.

Ann H. Kim

- Hollifield, James F. 1992. Migration and international relations: Cooperation and control in the European community. *International Migration Review*, 26(2): 568-595.
- Kritz, Mary M. and Hania Zlotnik. 1992. Global interactions: Migration systems, processes and policies in Kritz, M.M., Zlotnik, H. and Lim, L.L. *International migration systems: A global approach*. Oxford: Oxford University Press.
- Light, Ivan, Zhou, Min and Rebecca Kim. 2002. Transnationalism and American exports in an English-speaking world. *International Migration Review*, 36(3): 702-725.
- Martin, Philip L. 2001. Trade and migration: The Mexico-U.S. case, in Djajic, Slobodan (ed) *International migration: Trends, policies and economic impact*. London: Routledge.
- Massey, Douglas S., Arango, Joaquin, Hugo, Graeme, Kouaouci, Ali, Pellegrino, J. and Edward Taylor. 1998. *Worlds in motion: Understanding international migration at the end of the millennium*. Oxford: Clarendon Press.
- Mata, Fernando and Ravi Pendakur. 1999. Immigration, labor force integration and the pursuit of self-employment. *International Migration Review*, 33(2): 378-402.
- Mitchell, Christopher. 1989. International migration, international relations and foreign policy. *International Migration Review*, 23(3): 671-708.
- Nogle, June Marie. 1994. The systems approach to international migration: An application of network analysis methods. *International Migration*, 32(2): 329-342.
- Peridy, Nicolas J. 2006. Welfare magnets, border effects or policy regulations: What determinants drive migration flows in the EU? *Global Economy Journal*, 6(4): Article 3.
- Portes, Alejandro and John Walton. 1981. *Labor, class and the international system*. New York: Academic Press, Inc.
- Sassen, Saskia. 1988. *The mobility of labor and capital: A study in international investment and labor flow*. Cambridge: Cambridge University Press.

*The Flow of Labour and Goods in Canada's
International Migration System: 1986-1996*

- Schachter, Joseph and Paul G. Althaus. 1989. An equilibrium model of gross migration. *Journal of Regional Science*, 29(2): 143-159.
- Simmons, Alan B. 1989. World system linkages and international migration: New directions in theory and method, with an application to Canada, in IUSSP. International population conference. New Delhi 20-27 Sept.
- Simmons, Alan B. 1999. Economic integration and designer immigrants: Canadian policy in the 1990s, in Castro, Max J. *Free markets, open societies, closed borders? Trends in international migration and immigration policy in the Americas*. Coral Gables, FL: North-South Center Press.
- Simmons, Alan B. and Jean Pierre Guengant. 1992. Caribbean exodus and the world system, in Kritiz, M.M., Zlotnik, H. and Lim, L.L. *International migration systems: A global approach*. Oxford: Oxford University Press.
- Simmons, Alan B. and Kieran Keohane. 1992. Canadian immigration policy: State strategies and the quest for legitimacy. *Canadian Review of Sociology and Anthropology*. 29(4): 421-453.
- Vogler, Michael and Ralph Rotte. 2000. The effects of development on migration: Theoretical issues and new empirical evidence. *Journal of Population Economics*, 13: 485-508.
- Wallerstein, Immanuel. 1974. The rise and future demise of the World Capitalist System: Concepts for comparative analysis. *Comparative Studies in Society and History*, 16(4): 387-415.
- Weiner, Myron. 1985. On international migration and international relations. *Population and Development Review*, 11(3): 441-455.
- Yang, Philip Q. 1996. *Post-1965 immigration to the United States: Structural determinants*. Westport, CT: Praeger Publishers.

