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**NORTH AMERICAN MOBILITY: REGIONAL SYNERGIES IN COLLECTING  
MIGRATION STATISTICS**

Submitted by United States and Canada<sup>1</sup>

“This paper reports the results of research and analysis undertaken by staff at the US Census Bureau and Statistics Canada. It has undergone a review more limited in scope than that given to official publications at both the US Census Bureau and Statistics Canada. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress.”

**BACKGROUND**

In November 2001, international migration researchers from the United States, Canada, and Mexico met in Alexandria, Virginia, USA to exchange information about measuring migration between the three countries. As a result of this meeting, the North American Migration Working Group (NAMWG) was formed to promote awareness and knowledge of the patterns, causes, and consequences of migratory behavior affecting the United States, Canada, and Mexico through a central forum in which experts from statistical agencies formally exchange ideas on current and future approaches to measuring international migration. The first meeting of the group was exploratory in nature and established the general focus of cooperative activities for the group. The participants acknowledged the importance of understanding each country's data in terms of its availability and the extent to which it complies with the UN recommendations for the collection of statistics on international migration.

The second meeting of the group took place in Ottawa, Ontario, Canada in September 2002. Participants proposed an organizational structure for work by the group and established a list of short-term and longer-term projects that would inform the group's objectives. These projects were divided into three groups: metadata projects, developmental projects, and surveys.

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Metadata projects include a comprehensive and integrated technical documentation of international migration statistics collected and disseminated by the governments of the three NAMWG countries. This documentation organizes data into common themes (characteristics of migrants, attributes of moves/border crossings, and timing of moves) for a comprehensive comparison of international migration statistics across North America. The documentation will also include: the history of collecting international migration data within the three countries, an examination of the different collection instruments (census, survey, and administrative record), an overview of the methods by which data are processed after they are collected, and a review of the availability of data from these countries once they are produced, including dissemination vehicles.

Developmental projects and surveys are intended to fill gaps in data availability. They include, for example, an evaluation of Immigration and Naturalization Service (INS)<sup>2</sup> data to study certain types of temporary migration, reports on each country's flow data for international migration as benchmarked to the UN recommendations on international migration, and joint surveys of border areas. In addition, members of the North American Migration Working Group will assess the feasibility of a three-country North American Migration Survey.

In this paper, we outline the measurement of temporary migration—an exercise in refining the overall framework for this cooperative metadata effort. Using Canada and the United States as case studies, we provide examples of similarities and major differences that exist between concepts and measurement instruments of temporary migration in both countries. We focus on the synergies related to estimating the temporary movement of migrants because they represent an evolving aspect of international migration and international trade. In addition, we provide a short descriptive analysis of the size of the temporary migrant populations in Canada and the United States. Finally, we conclude with suggestions for improving data comparability and expanding data collection to cover statistics of interest on temporary migration within North America as they relate to the change in population and its subsequent effect on international trade in services.

## **FRAMEWORK FOR INTEGRATED METADATA**

As part of the overall metadata project, we have categorized international migration statistics across North America into three broad themes: (1) characteristics of movers, (2) moves/border crossings, and (3) timing of moves. Within each of these broad themes, we discuss primary concepts (or variables of interest) for each country.

### **Characteristics**

Characteristics refer to descriptive categorizations of migrants. These data are related to individual migrants, including self-identification, personal characteristics, and background. These concepts can be personal characteristics such as surnames or ancestry, or they can be related to individual migrants such as place of birth, language spoken, or even migrant status. More concepts under this theme include: age, sex, marital status, surname, occupation, education, place of birth, ancestry,

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<sup>2</sup> Although the Immigration and Naturalization Service (INS) was integrated into the new Department of Homeland Security on March 1, 2003, we will refer to it as the INS throughout this paper.

citizenship, nationality, foreign born, immigrant, emigrant, previous place of residence, language spoken, Social Security Number, alien registration number, migrant status, lawful permanent resident, illegal migrant, legal immigrant, landed immigrant, temporary migrant, nonimmigrant, temporary resident, asylee, refugee claimant, refugee, visitor, Temporary Protected Status, and so on.

### **Border Crossings**

Border crossings refer to primary concepts of where, how, and why migration occurs. These primary concepts differ from “characteristics” because they are not necessarily related to individual migrants. Such concepts include: the direction of the migration, ports of entry, mode of travel, destinations, frequency, commuting, border apprehension, detention, deportation, and reasons for move.

### **Timing**

Timing refers to primary concepts about when a migration occurs. These primary concepts differ from “characteristics” and “border crossings” because of their specific focus on time. Related data include: year of entry to a country, year of landed immigration, year of naturalization, duration of stay, and seasonality (or circularity) or migration.

Because of varied legislative needs, historical reasons for collecting international migration statistics, and national interests, international migration data differ between the countries of North America and are not directly comparable. For the purposes of this paper, we will highlight one example (how the United States and Canada estimate temporary migration and the stock of temporary migrants) to illustrate the inconsistencies that exist within the categories of “characteristics”, “border crossings”, and “timing” for these statistics—and the limitations in current statistics on temporary migration to address the critical questions about how it impacts both population change and international trade in services.

## **TEMPORARY MIGRATION – CHALLENGES IN MEASUREMENT**

Immigration laws and regulations in the United States and Canada provide legislative frameworks for the temporary entry of foreigners. The movement of temporary workers is among the most widely scrutinized of migratory movements. The primary objective of both countries has been to facilitate movement of key workers without compromising the capacity to effectively manage domestic markets.

In the United States nonimmigrants, more commonly known as temporary migrants, are defined by the Immigration and Nationality Act (INA) as aliens who are “admitted to the United States for a specified purpose and temporary period but not for permanent residence” (INS, 2000; p. 119). Temporary migrants are admitted to the U.S. under dozens of different classes, each with its own specific eligibility requirements and time limits.

Canada’s new Immigration and Refugee Protection Act (IRPA) and its Regulations were implemented in June 2002 (CIC, 2002a). They replace the Immigration Act, which was approved

in 1976 and has been amended more than 30 times. The Act defines a temporary resident as a person who is lawfully in Canada for a temporary purpose. Temporary residents in Canada—like the United States—include foreign students, foreign workers and visitors such as tourists. The IRPA specifies that every temporary resident, except from countries specifically exempted, must obtain a temporary resident visa before arriving in Canada. It also specifies conditions for entry of people under free trade agreements such as the North American Free Trade Agreement (NAFTA), the Canada-Chile Free Trade Agreement (CCFTA) and the General Agreement on Trade in Services (GATS). In general, the agreements cover four categories of businesspeople (business visitors, professionals, intra-company transferees, and traders or investors), with the exception of GATS which does not recognize the fourth category.

### **Flows in and out of the country**

Data on temporary migrants in the United States are available from two primary sources: the Immigration and Naturalization Service (INS) and the Department of State (DOS). INS is responsible for *recording* each temporary admission, along with all other admissions, into the United States. Data on temporary admissions by class and country of origin are published by INS in its annual Yearbook. The Department of State (DOS) is responsible for *issuing* temporary migrant visas through its consular offices to individuals living outside of the United States, and it publishes the number and classes of visas it issues during the year.

INS records each admission into the United States, instead of each individual person—thereby focusing on the timing of moves rather than on the characteristics of movers. If the same person leaves the United States and then returns, he or she will be recounted, regardless of past entries. Because many temporary migrants, especially students and temporary workers, leave and enter the United States more than once during the course of a year, the annual counts of temporary admissions include multiple entries of the same individual. The INS temporary admissions data are therefore a record of the number of temporary entries into the United States, not the number of individual people (INS 2000). INS does attempt to count the departures, or emigration, of temporary migrants, through the collection of Arrival/Departure Records (INS form I-94). However, due to problems with collection and recording, these data are not reliable (USGAO 1995).

Unlike the INS admissions data, the DOS visa issuance data are in fact counts of the number of individual visas, and do not include multiple counts of the same person's visa. However, not every person who is issued a visa actually uses it to enter the United States, or necessarily uses it during the year of issuance. In addition, not all people entering the United States temporarily (and legally) are included in the visa issuance data from DOS. Since the establishment of the Visa Waiver Pilot Program (VWPP) with the Immigration Reform and Control Act of 1986, citizens of certain countries, most of them in Europe, are allowed to visit the United States temporarily without a temporary migrant visa.

However, both INS and DOS data have limitations. The DOS visa issuance data are an undercount of the number of temporary migrants in the United States in any year, because they do not include certain categories of temporary migrants, nor do they include visa extensions or adjustments. On the other hand, INS admissions data potentially over-count the individual temporary migrants

entering the United States each year, because multiple entries of the same person are counted multiple times.

Canada is similar to the United States in that data on the flows of temporary residents (migrants) are available primarily from administrative records. In the case of Canada, these records are collected by Citizenship and Immigration Canada (CIC).

CIC uses the Client-Based Data System (CBDS) to produce data on temporary resident and refugee claimant flows from either a document-based or a client-based perspective (CIC, 2002b). The client-based statistics eliminate the double counting of the temporary migrant in situations when a person holds a number of different documents at any one time—similar to the State Department data on temporary migrants in the United States. Data for temporary migrants are available by their primary status as defined according to the principal reason for their entry to Canada. There are four categories of temporary migrants: workers, students, humanitarian cases (since 1989, these are primarily refugee claimants/asylum seekers) and all other cases (mostly people with temporary resident visas only). Data for foreign workers are published for a calendar year by principal country of origin (last permanent residence), level of skills (managerial; professional, skilled and technical; intermediate and clerical; and elemental and labourers), and sex.

Business visitors entering Canada under NAFTA, CCFTA and GATS agreements are engaged in activities which imply no participation in the domestic labour market (in other words, their principal source of remuneration remains outside Canada), so they do not need a work permit in Canada. Consequently, they are not included in statistics on foreign workers. The other three categories of workers entering Canada under these trade agreements (professionals, intra-company transferees, and traders or investors) are included however.

CIC statistics, although person-based (not document-oriented), generally exclude spouses and dependants unless they also have a CIC-issued permit in their own right. CIC does not attempt to estimate the departures of temporary migrants.

### **Stocks of temporary migrants in the country**

Neither INS nor DOS information is at this time suitable to produce data on the population (stock) of temporary migrants residing in the United States at any point of time. The US Census Bureau does not collect data on temporary migrants either. The data collected by the US Census Bureau allows us to distinguish directly between native and foreign-born residents of the country, but residency status (permanent or temporary) for the foreign-born population is not available. However, using demographic analysis techniques and an algorithm that approximates the specific requirements for the broad categories of temporary migrants (students, temporary workers, and their spouses and children), estimates can be produced for these temporary migrant categories using census long-form data and data from other federal surveys such as the Current Population Survey and the American Community Survey. The primary limitation of these estimates is that they are calculated through indirect techniques that may be sensitive to subjective decision-making (e.g., assumption that foreign students must have entered the country within the last four years). On the other hand, the primary advantage is that these are estimates of individuals (with their

accompanying detailed demographic and socioeconomic characteristics), not estimates of the actions (entries) taken by individuals.

In Canada, statistics on the population of temporary migrants are produced using data from the Census of Canada and administrative records from Citizenship and Immigration Canada. In contrast to the US census, the Canadian quinquennial census since 1991 distinguishes between migrants with temporary and permanent legal status in the country (“non-permanent residents” and “immigrants”, according to the Canadian census terminology). The census concept of temporary migrants (non-permanent resident population) differs from the one used for the CIC statistics. Like CIC, the Census includes in this population foreign workers, foreign students and refugee claimants; however, it excludes individuals and their spouses and dependents who have visitor records only. The other conceptual difference between the data from these two sources is that the census counts all spouses and born-outside-Canada dependents of workers, students and refugee claimants regardless of whether or not they have CIC-issued permits in their own right. Although the census does not distinguish directly between the three categories of temporary migrants, it provides very detailed demographic and socio-economic characteristics of the temporary migrant population as collected through the census long form (Badets and Chui, 1994). The major limitation of these data is that there is no information on year of arrival (that is, timing) for this population.

Statistics Canada also produces annual statistics for the population of temporary migrants—according to the census concept—using information from CIC. These statistics are available by basic demographic characteristics (age, sex, marital status) and for different geographical areas (Statistics Canada, 2002). Statistics of the stock of temporary migrants are also produced by CIC and are based on the same concepts as their flow statistics and are produced using the CBDS. In addition to the demographic detail available for the flows of temporary migrants, the figures are available by census metropolitan area and province of Canada (CIC, 2002b).

Flow data on departures of temporary migrants from the United States and Canada are not collected. However, an evaluation of the change in the stock of temporary migrants between two points in time can provide an indirect approximation of the flows of temporary migrants that occurred during this time period.

## **TEMPORARY MIGRANTS IN THE UNITED STATES AND CANADA**

Ongoing cooperative activities between Canada and the United States focus on both the stocks and flows of temporary migrants. However, for the purpose of this paper we limit our descriptive analysis in this paper to the stocks of temporary migrants derived from the Census of Canada and the US Census of Population and Housing. Although these statistics differ in their derivation (as mentioned earlier), they provide an interesting comparison of the stocks of temporary migrants between the two countries. Because of existing gaps in the collection of data on temporary migration, we have limited information on the characteristics of migrants—and little to no information about when and where these border crossings took place.

## Size of the temporary migrant population

As noted previously, the temporary movement of migrants represents an evolving aspect of international migration (and subsequently, international trade) in both the United States and Canada. Although growth in the number of temporary migrants has been considerable for both countries during the most recent decade, the level and relative impact of this group of migrants continues to differ between Canada and the United States. Nearly a decade ago, more than twice as many temporary migrants resided in the United States than in Canada (487,000 compared with 223,000); however, temporary migrants represented a larger share of the foreign-born population (and the total population) in Canada than in the United States (4.9 percent of the foreign-born population and 0.8 percent of the total population in Canada compared with 2.5 percent of the foreign-born population and 0.2 percent of the total population in the United States) (see Table 1). In other words, about one of 20 foreign born in Canada was a temporary migrant in 1991; about one in 40 foreign born in the United States was a temporary migrant in 1990.

Table 1. Temporary Migrants to the United States and Canada: Census Data

Country	Temporary Migrants	Foreign-born Population	Total Population	Proportion of Temporary Migrants in	
				Foreign-born Population (%)	Total Population (%)
United States					
April 1990	487,500	19,767,300	248,709,900	2.5	0.2
April 2000	781,500	31,107,900	281,421,900	2.5	0.3
Canada					
June 1991	223,400	4,566,300	26,994,000	4.9	0.8
May 1996	166,700	5,137,800	28,528,100	3.2	0.6
May 2001	198,600	5,700,800	29,639,000	3.5	0.7

**Source:** Cassidy, Rachel and L. Pearson, 2001. "Evaluating Components of International Migration: Temporary (Legal) Migrants. (Population Division Working Paper #60). US Census Bureau.; Statistics Canada. Immigration and Citizenship. Ottawa: Supply and Services Canada, 1992 and unpublished data.

Estimates derived from the most recent data for each country suggest that the temporary migrant population has actually declined in Canada (from 223,000 in 1991 to 199,000 in 2001) while increasing substantially in the United States (from 487,000 in 1990 to 782,000 in 2000). Nevertheless, temporary migrants remain a larger share of the foreign born and total population in Canada (3.5 percent and 0.7 percent, respectively) than in the United States (2.5 percent and 0.3 percent respectively) (see Table 1). By 2001, about one of 30 foreign born was a temporary migrant in Canada; about one of 40 foreign born in the United States was a temporary migrant in 2000.

## Place of birth for temporary migrants

The place of birth for temporary migrants is also quite different for the United States and Canada. For example, those born in the United States represent the largest group of temporary migrants to Canada in both 1991 and 2001 (8.1 percent and 10.3 percent of temporary migrants, respectively) (see Table 2). Migrants born in Japan represented the largest group of temporary migrants to the United States in 1990 (12.9 percent of temporary migrants) while migrants born in India represented the largest group in 2000 (12.5 percent of temporary migrants) (see Table 2). Migrants

born in Canada accounted for the fifth largest group of temporary migrants in 1990, but the fourth largest group in 2000 (4.8 percent of temporary migrants and 7.5 percent of temporary migrants, respectively).

Table 2. Top Ten Countries of Temporary Migrants to Canada and the United States, Census Data  
**Canada**

1991				2001			
Rank	Place of birth	Number	%	Rank	Place of birth	Number	%
1	United States	18,200	8.1	1	United States	20,500	10.3
2	Philippines	15,100	6.8	2	People's Republic of China	12,700	6.4
3	Sri Lanka	12,700	5.7	3	Korea, South	12,200	6.1
4	Hong Kong	11,000	4.9	4	Japan	8,600	4.3
5	People's Republic of China	10,900	4.9	5	United Kingdom	8,600	4.3
6	United Kingdom	9,300	4.2	6	India	7,500	3.8
7	Iran	8,200	3.7	7	Mexico	6,500	3.3
8	Trinidad and Tobago	7,000	3.1	8	Philippines	6,500	3.3
9	Japan	6,800	3.0	9	France	5,800	2.9
10	India	5,800	2.6	10	USSR	5,600	2.8
	Sub-total (10 countries)	105,000	47.0		Sub-total (10 countries)	94,500	47.6
	Other countries	118,400	53.0		Other countries	104,100	52.4
	TOTAL	223,400	100.0		TOTAL	198,600	100.0

**United States**

1990 <sup>1</sup>				2000			
Rank	Place of birth	Number	%	Rank	Place of birth	Number	%
1	Japan	63,100	12.9	1	India	98,000	12.5
2	China and Taiwan	55,700	11.4	2	China and Taiwan	79,500	10.2
3	Korea	29,600	6.1	3	Japan	73,200	9.4
4	India	26,000	5.3	4	Canada	58,500	7.5
5	Canada	23,400	4.8	5	Korea	54,400	7.0
6	United Kingdom	19,900	4.1	6	Mexico	31,200	4.0
7	Philippines	18,500	3.8	7	United Kingdom	29,000	3.7
8	Mexico	18,200	3.7	8	Germany	27,000	3.5
9	Germany	11,200	2.3	9	Colombia	15,700	2.0
10	Iran	9,300	1.9	10	Philippines	14,100	1.8
	Sub-total (10 countries)	274,700	56.4		Sub-total (10 countries)	480,600	61.5
	Other countries	212,700	43.6		Other countries	300,900	38.5
	TOTAL	487,500	100.0		TOTAL	781,500	100.0

<sup>1</sup> Persons who "came to stay" in the United States in 1987 or later.

**Source:** 1991 and 2001 Canadian Census of Population unpublished data; Cassidy, Rachel and L. Pearson, 2001. "Evaluating Components of International Migration: Temporary (Legal) Migrants. (Population Division Working Paper #60). US Census Bureau.

Numerically, migrants from the United States (in Canada) were about 18,000 in 1991 and 20,000 in 2001. While the number of Americans in Canada was relatively consistent between 1991 and 2001, the number of Canadians in the United States was about 23,000 in 1990, just over one-third the size of the largest temporary migrant group (migrants from Japan were estimated at nearly 63,000) (see Table 2). In 2000, the number of Canadians in the United States increased to more than 58,000 (about three-fifths the size of the temporary migrant population from India (see Table 2). Although the increases were more noticeable among Canadians in the United States, temporary migrants from both countries have increased in number as well as the proportion of all migrants within the respective countries.



## **Application of the framework**

The above example shows the importance of having a framework that can be applied across borders. The statistics presented show what is most comparable at this point in time. Often these data are used without much scrutiny because they are the best (or only) information available. However, such usage masks different definitions of temporary migrants not only across countries, but also between agencies within the same country. By presenting data without these detailed explanations of the definitions used in their creation, we can inadvertently mislead data users to make the assumption that the data are highly comparable when in fact they may not be.

The most comparable information available from current censuses is place of birth for migrants. Other characteristics of temporary migrants are much less comparable, often due to differences in data availability between countries or due to different definitions of available characteristics of temporary migrants. For example, GATS excludes one category of temporary migrant included by other forms of legislation, so the total number of temporary migrants between data sources may differ if the underlying universes (as defined by the relevant legislation) are different. Only when consistent definitions of characteristics are employed will we be able to discuss similarities and differences between trends in temporary migration between countries.

In addition, the lack of detailed information related to the actual moves (border crossings)—and the timing of such moves—limits our understanding of the total impact of temporary migrants on both the sending and host countries. Efforts at consistency in current statistics often focus on estimating the level of *temporary migration* and its subsequent impact on population change without detailed attention to inconsistencies in reporting other characteristics for *temporary migrants* and the subsequent impact they have on certain industries and occupations within which they work. Without reliable and valid statistics on relevant topics such as timing of moves and areas of border crossings, data users will be unable to report flows of temporary migrants that accurately reflect population change and its subsequent impact on economic activity in the sending and host countries.

## **FUTURE DIRECTIONS AND EMERGING DATA NEEDS**

With continued growth in the number of temporary migrants—and the correlated expansion of international trade in services—reliable and valid statistics on temporary migration are necessary for demographers interested in population growth and economists interested in its impact on wages and employment rates in certain occupations and industries. As this paper demonstrates, it is unrealistic to think that existing data can address most policy-relevant needs about the size, characteristics, and impact of temporary migration. For example, the Manual on Statistics of International Trade in Services states: “from the point of view of trade policy, the one-year rule for residency and the related statistics are not very satisfactory.” Nevertheless, the conceptual framework presented herein provides a starting point for evaluating the consistency of data as they currently exist. Additionally, the broad themes of this framework provide a structure for discussions about potential variables of interest, whether one is interested in population change or in the related activities of those who are temporary migrants.

By making continual incremental progress in producing reliable and valid statistics on temporary migration (and temporary migrants), we can eventually address the overall usefulness of statistics for many data users. While this framework needs to be reevaluated for relevancy as additional interests are identified, it can provide the structure for facilitating discussions between the countries of North America - and eventually between countries of other regions as well.

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