MOBILITY AND MIGRATION PATTERNS OF ABORIGINAL POPULATIONS IN CANADA: 2001-2006

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ABSTRACT / RÉSUMÉ

Understanding the bases of population growth and change is important as it can inform the policy and program development process and provide a stronger basis for forecasting future population changes which often serve as key factors shaping service demand. Data from the 2001 and 2006 Censuses of Canada reveal quite high rates of Aboriginal population growth, especially in eastern Canada and in off-reserve urban areas. Within the context of census data, regional and location-specific population changes can result from four key factors: natural increase (i.e. the excess of births over deaths), changes over successive censuses in levels of non-enumeration and survey under-coverage, changes in individuals' propensity to report Aboriginal identity (commonly referred to as ethnic mobility), and migration. This study provides a preliminary examination of the contribution of migration to Aboriginal population growth at the provincial/regional level and in on-and off-reserve areas during the 2001 to 2006 time period.

Il est important de comprendre les bases de l'accroissement et des changements démographiques, puisque cela permet d'éclairer le processus d'élaboration des politiques et des programmes et de donner une base plus solide aux prévisions démographiques qui sont souvent les principaux facteurs sur lesquels on se fonde pour établir la demande de services. Les données des recensements de 2001 et de 2006 au Canada ont révélé des taux très élevés de croissance démographique chez les Autochtones, particulièrement dans l'Est du Canada et à l'extérieur des réserves, en milieu urbain. Dans le contexte des données du recensement, les changements démographiques se produisant dans des régions et dans des endroits particuliers peuvent résulter des quatre principaux facteurs suivants : l'accroissement naturel (lorsqu'il y a davantage de naissances que de décès), les fluctuations des niveaux de non-recensement et de sous-dénombrement lors de recensements successifs, les changements dans la propension des personnes à déclarer leur identité autochtone (que l'on appelle couramment la mobilité ethnique) et la migration. Cette étude fournit un examen préliminaire de la contribution de la migration à la croissance de la population autochtone aux niveaux provincial et régional, ainsi qu'à l'intérieur et à l'extérieur des réserves durant la période de 2001 à 2006.

INTRODUCTION

A considerable body of existing research has explored various aspects of the mobility and migration patterns of Aboriginal peoples in Canada over the course of the past 35 years (Siggner 1977; Norris 1985; 1990, 2002; Clatworthy 1995; Clatworthy and Cooke 2001; Clatworthy and Norris 2007). This paper extends upon this research by exploring some of the key dimensions of Aboriginal mobility and migration for the period spanning 2001 to 2006, as identified by the 2006 Census of Canada. In addition to providing estimates of mobility and migration rates, the paper identifies the scale and direction of Aboriginal population movements among provinces and regions, and between reserves, and off-reserve rural and urban areas. Migration patterns for the 2001 to 2006 time period are presented within the context of longer-term trends observed for previous census time intervals.

CONCEPTS AND DEFINITIONS

ABORIGINAL POPULATION

The Census of Canada collects data that allows one to define Aboriginal populations according to several criteria, including ethnic origin (ancestry), identity (self-reported affiliation with an Aboriginal group), Indian registration status and membership in an Indian band. For purposes of this study, the Aboriginal population is defined on the basis of the latter three criteria and includes all those who reported at least one Aboriginal identity (North American Indian, Métis, Inuit), as well as all those who reported Indian registration or band membership (regardless of Aboriginal identity). Data and analysis are presented in this study for four Aboriginal sub-groups, including:

- *Registered Indians* – those who reported being registered under the Indian Act, regardless of self-reported identity;
- *Non-registered Indians* – those who reported North American Indian identity (only) and who did not report Indian registration;[1]
- Non-registered *Métis*, including those who reported Métis identity (only) and who did not report Indian registration;
- Non-registered *Inuit*, including those who reported Inuit identity (only) and who did not report Indian registration.

In addition to these discrete population sub-groups, a small number of individuals reported more than one Aboriginal identity or a non-Aboriginal identity but membership in an Indian band. Although results are not presented separately these individuals have been included in the estimates presented for the total Aboriginal population. For purposes of comparison, several aspects of the analysis are also presented for the non-Aboriginal population.

MOBILITY AND MIGRATION CONCEPTS

Mobility and migration data are collected by the Census of Canada using two questions:

- Where did you live 5 years ago?
- Where did you live 1 year ago?

Responses to these questions can be configured to identify three main population sub-groups, including:

- *Non-movers*, or those who reported living at the same address at the outset of the 1 or 5 year reference period;
- *Non-migrant movers*, or those who lived at a different address in the same community at the outset of the 1 or 5 year reference period;
- *Migrants*, or those who lived in a different community at the outset of the 1 or 5 year reference period.

The migration components presented in this paper are derived from analysis of data collected using the 5 year question.[2] Crude migration rates (i.e. the proportion of individuals that reported migration) are presented for the 5 year period. Estimates of in-, out-, and net migration rates are also calculated from the 5 year data, but are presented in this paper as average annual estimates.

GEOGRAPHY

As noted above, the migration components of the study explore both inter-provincial/regional moves and moves between Indian reserves and off-reserve rural and urban areas. In the case of inter-provincial/regional moves, estimates are provided for all provinces and territories, with the exception of the Atlantic provinces (which have been grouped to form an Atlantic region). Analysis of moves between reserves, rural and urban areas distinguish among four discrete types of geographic areas, including:

- Indian reserves and settlements;
- rural areas;
- urban non-census metropolitan areas (non-CMAs);
- urban census metropolitan areas (CMAs).[3]

DISTRIBUTION AND GROWTH OF THE ABORIGINAL POPULATION

Unadjusted census estimates of the size and geographic distribution of Aboriginal populations need to be interpreted with some caution, as they are biased as a consequence of non-enumeration and survey-coverage. In general, the effect of this bias is to significantly understate the size of the population residing on reserves. As

Registered Indians form a very large majority of reserve populations, the census estimates for this sub-group of the Aboriginal population are also understated.[4]

In 2006, the Aboriginal population (as defined for this paper) was estimated by the census to total about 1,172,290 and included 623,780 Registered Indians, 355,505 (non-registered) Métis, 133,155 non-registered Indians and 49,115 (non-registered) Inuit. An additional 11,235 individuals reported either multiple Aboriginal identities or a non-Aboriginal identity but band membership.

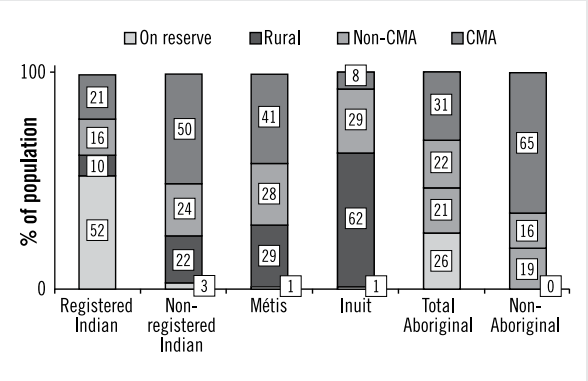
Many earlier studies of Aboriginal migration (e.g. Norris and Clatworthy 2003) have noted pronounced differences in the distribution of Aboriginal sub-groups by type of residence location. These differences have also been linked to quite pronounced differences in the patterns of mobility and migration of specific Aboriginal sub-groups.

The general nature of differences in the location distribution of Aboriginal population sub-groups is illustrated in Figure 1. In 2006, most (about 52%) Registered Indians lived on reserve although large segments of the population (about 37%) lived in urban areas. A large majority of both the Métis and non-registered Indian populations resided in urban areas, most commonly in large cities (CMAs). More than 60% of the Inuit population lived in rural areas, although a significant minority (about 37%) also lived in urban areas. In relation to Aboriginal populations, the non-Aboriginal population was much more heavily concentrated in urban areas (81%), especially large urban areas (65%).

Figure 2 presents unadjusted census estimates of Aboriginal population growth reported for each of the four geographic areas during the 2001 to 2006 time period. Population growth during the period totaled about 196,500 individuals or 20%. The Aboriginal population increased at all four locations, although most growth during the period (about 90%) occurred off-reserve in urban areas. As illustrated in Figure 3, the Aboriginal population also increased in all provinces/regions between 2001 and 2006. Regional-level growth was most pronounced (in percentage terms) in eastern Canada and in the province of Alberta.

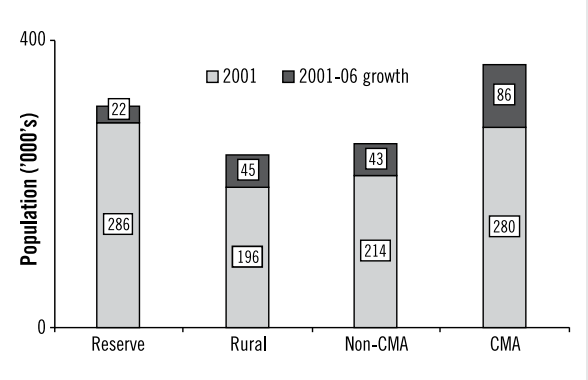
Regional and location-specific growth in Aboriginal populations (as measured using census data) can result from a variety of factors, including natural increase (i.e. the excess of births over deaths), changes between census periods in levels of non-enumeration and under-coverage, changes in the population's propensity to report Aboriginal identity (commonly referred to as ethnic mobility), as well as migration. While data necessary to isolate all of the components of Aboriginal population growth during the 2001 to 2006 time period are not yet available, it is possible to explore the role played by migration in contributing to regional growth, and to growth in populations living on reserve and in rural and urban areas off-reserve. In this regard, the study's results will hopefully provide some initial insights into the relative contribution of migration vis-à-vis other factors affecting Aboriginal population changes observed during this time period.

FIGURE 1: Distribution of Aboriginal and Non-Aboriginal Populations by Type of Residence Location, Canada, 2006.



Source: 2006 Census of Canada (unadjusted data)

FIGURE 2: Estimated Growth in the Aboriginal Population by Type of Residence Location, Canada, 2001-2006.



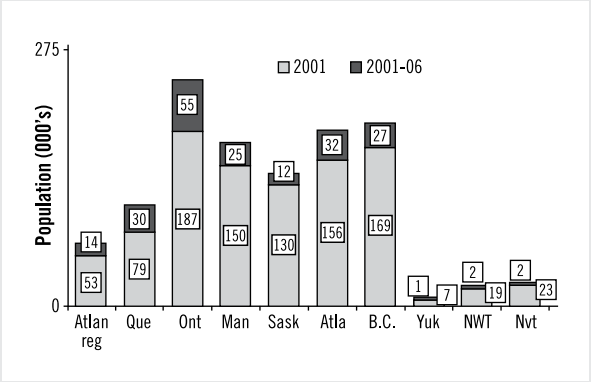
Source: 2001 and 2006 Census of Canada (unadjusted data)

MOBILITY AND MIGRATION RATES

Earlier research (Clatworthy and Norris 2007) has revealed that overall levels of mobility and migration among Aboriginal populations have exceeded those of the non-Aboriginal population for several census time intervals.

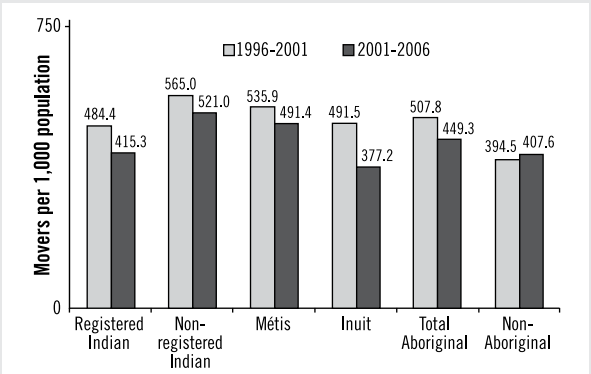
Estimates of crude mobility rates (i.e. the proportion of the population that moved) are presented in Figure 4 for each of the Aboriginal sub-groups for the 2001 to 2006 period and the previous 5 year period. In general, the

FIGURE 3: Estimated Growth in the Aboriginal Population by Province/Region, Canada, 2001-2006.



Source: 2001 and 2006 Census of Canada (unadjusted data)

FIGURE 4: Five Year Crude Mobility Rates for Population Aged 5 or More Years by Aboriginal Sub-group, Canada, 1996-2001 and 2001-2006.



Source: 2001 and 2006 Census of Canada (unadjusted data)

pattern of mobility among Aboriginal sub-groups was quite similar for both time periods. Crude mobility rates were highest among non-registered Indians (about 521 per 1,000 population) and Métis (about 491 per 1,000) and significantly lower among Registered Indians (about 415 per 1,000) and Inuit (about 377 per 1,000). The figure also reveals that crude mobility rates among all Aboriginal sub-groups declined during the 2001 to 2006 period. These declines were most pronounced among Inuit (23% lower) and Registered Indians (14% lower). Mobility among non-registered Indians and Métis fell by about 8% during the period.

To some extent, the mobility estimates for Aboriginal sub-groups presented in Figure 4 mask the true extent of movement differentials between Aboriginal and non-Aboriginal populations. As revealed in Table 1, the lower aggregate rates of mobility identified for Inuit and Registered Indians result from the higher concentrations of these populations in locations (on reserve in the case of Registered Indians and in rural areas in the case of Inuit) which tend to have quite low rates of mobility.[5] Mobility rates among these sub-groups were significantly higher in urban areas and exceeded those of other sub-groups in large urban areas. The table also reveals that in relation to the non-Aboriginal population, crude mobility rates among all Aboriginal sub-groups were much higher in off-reserve locations, and especially so in urban areas where Aboriginal mobility rates were 35% to 40% higher than non-Aboriginal rates.

Between 2001 and 2006, about 203,450 Aboriginal people changed their community of residence, representing a crude migration rate of about 191 per 1,000 population. As illustrated in Figure 5, the pattern of crude migration rates among Aboriginal sub-groups was quite similar to that observed for mobility rates.

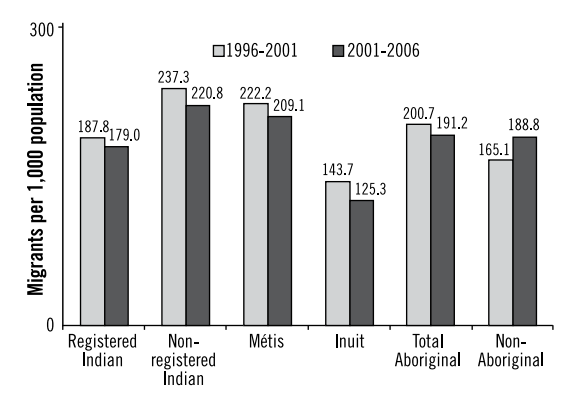
Migration during the 2001 to 2006 period was highest among non-registered Indians (about 221 per 1,000 population) and Métis (about 210 per 1,000). Migration rates among Registered Indians (179 per 1,000) and Inuit (125 per 1,000) were sharply lower and below the migration rates observed for the non-Aboriginal population. As in the case of broader mobility, crude migration rates among all Aboriginal sub-groups declined during the 2001 to 2006 time period.

TABLE 1: Five Year Crude Mobility Rates for Population Aged 5 or More Years by Aboriginal Sub-group and Location of Residence, Canada, 2001-2006.

LOCATION	REGISTERED INDIAN	NON-REGISTERED INDIAN	MÉTIS	INUIT	TOTAL ABORIGINAL	NON-ABORIGINAL
On Reserve	237.4	–	–	–	242.0	–
Rural	374.1	379.5	329.9	302.3	345.6	284.3
Non-CMA	624.2	577.9	556.9	467.1	582.4	419.5
CMA	639.7	567.0	565.6	634.9	595.7	440.6
All Locations	415.3	521.0	491.5	377.1	449.4	407.6

Source: 2006 Census of Canada (unadjusted data)

FIGURE 5: Five Year Crude Migration Rates for Population Aged 5 or More Years by Aboriginal Sub-group, Canada, 1996-2001 and 2001-2006



Source: 2001 and 2006 Census of Canada (unadjusted data)

As revealed in Table 2, crude migration rates among all Aboriginal sub-groups varied widely by residence location, being substantially higher among all sub-groups in urban areas as opposed to reserves and rural areas. With the exception of Inuit residing in rural areas and smaller urban centres, Aboriginal migration rates in off-reserve locations were substantially higher than those of the non-Aboriginal population. In relation to the non-Aboriginal population, migration rates were especially high among Registered Indians in urban areas and among Inuit living in large urban centres (CMAs).

INTER-PROVINCIAL/REGIONAL MIGRATION

Between 2001 and 2006, roughly 46,200 Aboriginal people relocated to a different province or region, representing a 5 year migration rate of about 44 per 1,000 population. Rates of inter-provincial/regional migration were structured among Aboriginal sub-groups in much the same fashion as crude migration rates, being highest among Métis (55 per 1,000 population) and non-registered Indians (47 per 1,000). Rates among Inuit and Registered Indians were estimated to be about 44 and 36 per 1,000, respectively.

Among the total Aboriginal population, the inter-provincial/regional migration rate was 44 per 1,000 population, roughly 1.5 times higher than that reported by the non-Aboriginal population (30 per 1,000).

Although sizable numbers of Aboriginal people changed their province or region of residence between 2001 and 2006, net changes during the period numbered only 12,500 or about 1.2% of the total population, suggesting that this dimension of migration had only a minor impact on the geographic distribution of Aboriginal populations. Figure 6 provides a summary of 2001 to 2006 Aboriginal net migration rates for Canada's provinces/regions as well as estimates prepared previously by Clatworthy and Norris (2007) for the previous census time interval. The rates are expressed as average annual rates per 1,000 population.

Data presented in the figure suggest that relatively few changes occurred in the pattern of Aboriginal inter-provincial/regional migration between the 1996 to 2001 and 2001 to 2006 periods. For the 2001 to 2006 period, only Alberta and Yukon recorded net inflows of Aboriginal migrants, although in the case of Yukon, the absolute number of net in-migrants was quite small (about 250). All remaining provinces/regions recorded quite small net outflows of Aboriginal migrants during the 2001 to 2006 period. In relation to the previous time period, reversals in the direction of net migration were recorded in Yukon (from a net outflow to inflow), Nunavut, Saskatchewan, and Ontario (from net inflows to net outflows).

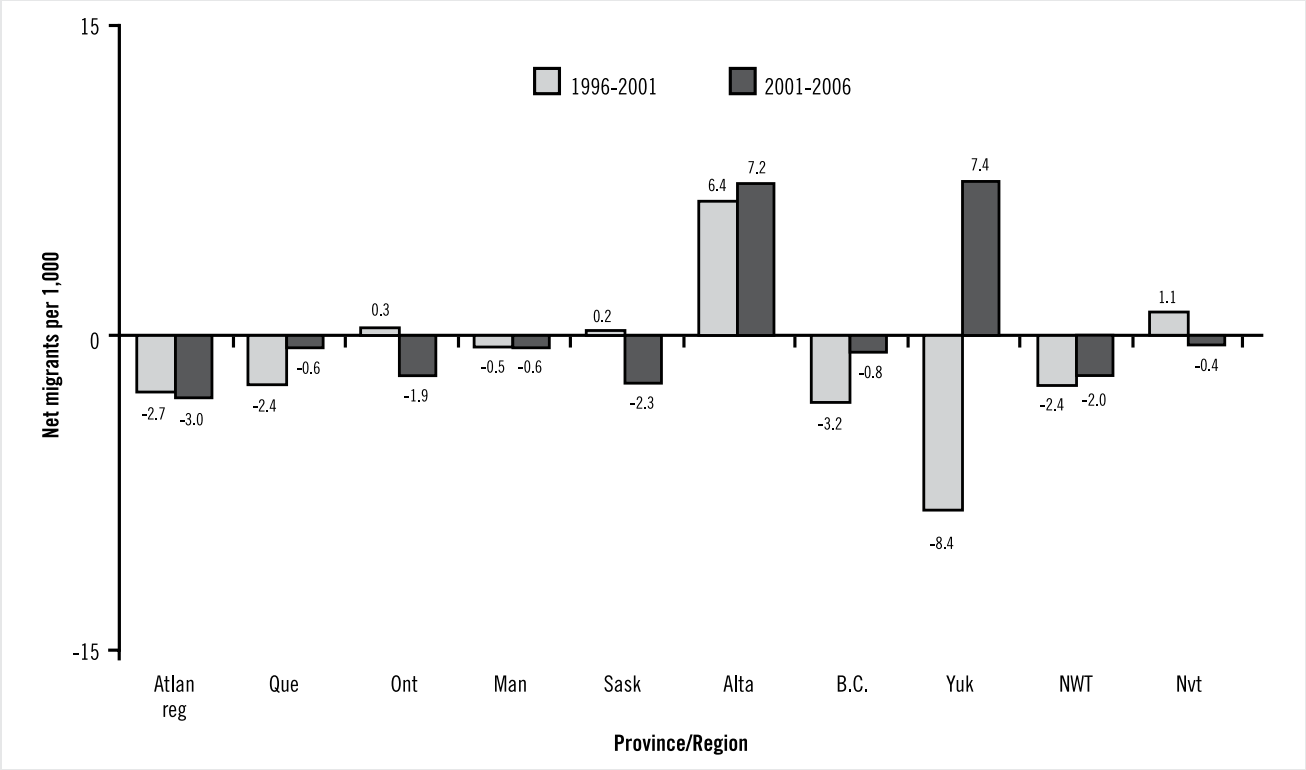
The contribution of migration during the 2001 to 2006 period to changes in the size of provincial/regional Aboriginal populations was significant only in Alberta, Yukon and Saskatchewan. Net migration accounted for about 29% and 24% of the 2001 to 2006 growth in the Aboriginal populations of Alberta and Yukon, respectively. Net out-migration from Saskatchewan reduced Aboriginal population growth in that province by about

TABLE 2: Five Year Crude Migration Rates for Population Aged 5 or More Years by Aboriginal Sub-group and Location of Residence, Canada, 2001-2006.

LOCATION	REGISTERED INDIAN	NON-REGISTERED INDIAN	MÉTIS	INUIT	TOTAL ABORIGINAL	NON-ABORIGINAL
On Reserve	94.1	–	–	–	97.5	–
Rural	223.1	218.3	192.2	76.3	190.3	174.6
Non-CMA	294.1	254.0	249.9	174.0	265.0	196.9
CMA	243.6	207.7	192.7	323.4	217.5	190.6
All Locations	179.1	220.8	209.1	125.3	191.2	188.8

Source: 2006 Census of Canada (unadjusted data)

FIGURE 6: Average Annual Net Migration Rates for Aboriginal Population Aged 5 or More Years by Province/Region, Canada, 1996-2001 and 2001-2006.



Source: 2001 and 2006 Census of Canada (unadjusted data)

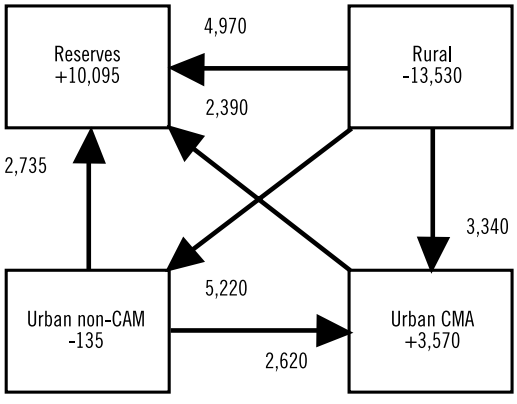
17%. The impacts of inter-provincial moves on the size of Aboriginal populations in all other provinces/regions were considerably smaller.

MIGRATION BETWEEN RESERVES, RURAL AND URBAN AREAS

Many aspects of the migration patterns of Aboriginal people between reserves and off-reserve rural and urban areas have been examined by several researchers over the course of the past 35 years (Siggner 1977; Norris 1985, 1990, 2002; Clatworthy 1995; Clatworthy and Cooke 2001; Clatworthy and Norris 2007). Although much of the earliest research in this regard focused on Registered Indians, more recent work has also included other subgroups of the Aboriginal population.

Excluding migrants from abroad, about 199,450 Aboriginal people relocated to a different community between 2001 and 2006. Internal migrants represented about 18.8% of the population aged 5 or more years, about 1.1 percentage points lower than that observed for the previous census time interval. Although large numbers

FIGURE 7: Aboriginal Net Migration Flows Between Reserves and Off-Reserve Rural and Urban Areas, Canada, 2001-2006.



Note: Numbers in italics denote reversal of the pattern observed during the 1996 to 2001 time period.
Source: 2006 Census of Canada (unadjusted data)

TABLE 3: Volume of Aboriginal Net Migration by Location and Aboriginal Sub-group, Canada, 2001-2006.

ABORIGINAL SUB-GROUP	RESERVES	RURAL	NON-CMA	CMA	TOTAL RELOCATIONS
Registered Indians	9,645	-12,755	115	2,995	25,510
Non-Registered Indians	305	-760	60	395	1,520
Métis	130	590	-775	55	1,550
Inuit	-10	-820	765	65	1,660

Source: 2006 Census of Canada (unadjusted data)

of Aboriginal people changed communities between 2001 and 2006, the net effect of migration on the geographic distribution of the population was considerably smaller. Net movers among reserves and off-reserve rural and urban areas numbered about 27,300 or about 2.6% of the total population.

Figure 7 provides a summary of the 2001 to 2006 net flows of Aboriginal migrants for reserves, rural areas, non-CMAs and CMAs. Net migrants to reserves totaled about 10,095 and resulted from net inflows from rural areas, as well as from urban non-CMAs and CMAs. Rural areas recorded a net loss of 13,530 migrants during the period through net outflows to reserves and urban areas.

Although smaller urban centres (i.e. non-CMAs) recorded net inflows from rural areas, these were offset by out-migration to reserves and larger urban areas. The net effect of migration on the size of the Aboriginal population residing in smaller urban areas (a loss of 135 individuals) was quite small. Larger urban areas (CMAs) gained about 3,570 migrants during the period, as net outflows to reserves were offset by larger inflows of migrants from rural areas and smaller urban centres.

The vast majority (about 93%) of the net migration observed among reserves and off-reserve rural and urban areas was associated with Registered Indians. As revealed in Table 3, in relation to the impacts of migration observed for Registered Indians, the effects of migration on the geographic distribution of all non-registered sub-groups of the Aboriginal population were quite modest.

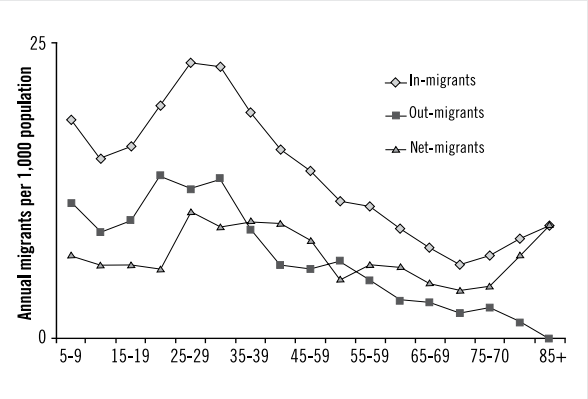
In general, the patterns of net migration observed for the 2001 to 2006 period were quite similar to those identified for the 1996 to 2001 time period. Reserves continued to gain population through net in-migration from off-reserve rural and urban areas. Rural areas experienced a small net inflow of Métis migrants but this was offset by much larger net outflows of Registered Indians. Smaller urban areas experienced modest net inflows of Inuit, Registered Indian and non-registered Indian migrants, but these inflows were offset by net out-migration of Métis. In contrast with other geographic locations, the pattern of net migration for large urban areas (CMAs) observed for the 2001 to 2006 period differed from that of the 1996 to 2001 period. Large urban areas recorded net migration gains from all Aboriginal sub-groups. Most of these gains were associated with Registered Indians.

AGE STRUCTURE OF MIGRANTS

Although reserves recorded small population gains through migration and rural areas recorded sizable outflows of migrants, migration did not contribute in a significant way to changes in the size of Aboriginal populations living in urban areas. Migration, however, can contribute to other population changes including changes to the age structure of the population. Figures 8, 9 and 10 provide a summary of Aboriginal in-, out- and net- migration rates by age group for reserves, rural and urban areas, respectively.

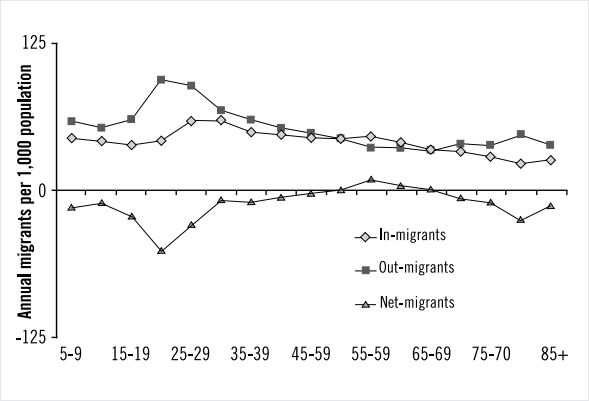
In the case of reserves (Figure 8), the structure of in- and out-migration rates over age groups was quite similar, with the highest rates of migration associated with children, youth and young adults. In-migration rates, however, exceeded out-migration rates for all age groups resulting in net inflows to reserves among all age groups. Net migration rates did not vary widely among age

FIGURE 8: In-, Out-, and Net Migration Rates Among Aboriginal Population Aged 5 or More Years by Age Group, Indian Reserves and Settlements, Canada, 2001-2006.



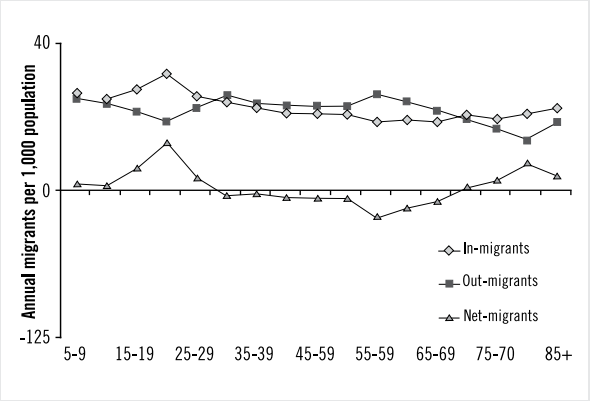
Source: 2006 Census of Canada (unadjusted data)

FIGURE 9: In-, Out-, and Net Migration Rates Among Aboriginal Population Aged 5 or More Years by Age Group, Off-reserve Rural Areas, Canada, 2001-2006.



Source: 2006 Census of Canada (unadjusted data)

FIGURE 10: In-, Out-, and Net Migration Rates Among Aboriginal Population Aged 5 or More Years by Age Group, Off-reserve Urban Areas, Canada, 2001-2006.



Source: 2006 Census of Canada (unadjusted data)

groups, suggesting that migration during the 2001 to 2006 time period had little impact on the age composition of reserve populations.

Similar data for rural areas (Figure 9) and urban areas (Figure 10) reveal quite different patterns of migration among age groups. In the case of rural areas, out- migration rates exceeded in-migration rates for all age cohorts, except those aged 50 to 69 years. Net outflows of migrants from rural areas occurred among all age groups under 50 years and those 70 or more years of age and were largest among youth and young adults (15 to 29 years).

In urban areas, the pattern of net-migration over age groups was nearly the exact opposite of that observed for rural areas. Inflows of migrants occurred among all age groups under 50 years as well as those 70 or more years of age.

The analyses of age-specific rates suggests that the effects of migration on the age composition of Aboriginal populations during the 2001 to 2006 time period were limited to off-reserve locations. In the case of rural areas migration appears to be contributing to a shift in the age structure of the population to older cohorts. In urban areas, net inflows of younger cohorts appear to be contributing to the maintenance of more youthful age structures.

SUMMARY AND DISCUSSION

Analyses reported in this paper reveal that high rates of mobility and migration continue to characterize Aboriginal populations in Canada. Although mobility and migration rates among Aboriginal populations appear to be declining, they remain much higher than those of the non-Aboriginal population in off-reserve areas, especially in urban areas.

In spite of large volumes of movements, the effects of migration during the 2001 to 2006 time period on the geographic distribution of Aboriginal populations were relatively small. Migration was a significant (although not the major) component of population change in only three provinces/regions: Alberta, Yukon and Saskatchewan. Moves between reserves and rural and urban off-reserve areas also had relatively small impacts on the distribution of Aboriginal populations, contributing modestly to growth on reserve (among Registered Indians) and more significantly, to reduced levels of growth in rural areas. With respect to population growth in urban areas, the direct effects of migration were quite small.

Migration, however, may be having a significant indirect effect on some of the population changes observed in off-reserve rural and urban areas. Significant net outflows of younger age cohorts can be expected to have the effect of lowering the rate of natural increase in rural areas. The reverse situation appears to be occurring in urban areas which experienced net inflows of young cohorts. Migration appears to be accelerating the shift of the age structure of Aboriginal populations to older age cohorts in rural areas, while maintaining a more youthful age structure among urban Aboriginal populations.

The high levels of population growth observed in all provinces/regions, on reserve, and in off-reserve rural and urban areas cannot be accounted for by migration patterns. Research conducted for prior census periods (Guimond 1999; Clatworthy 2007) has revealed that the majority of Aboriginal population growth in all locations

resulted not from migration, but from natural increase and changes in the reporting of identity (ethnic mobility). In several regions and in several specific urban areas, ethnic mobility was identified as the largest factor in population growth. Given the scale of Aboriginal population growth observed for the 2001 to 2006 time period in some regions and in off-reserve areas and the relatively small role played by migration in this regard, the study's results strongly suggest that that natural increase and changes in reporting of identity have continued to be the main drivers of change in the distribution and growth of Aboriginal populations.

While much is presently known about Aboriginal migration patterns and the factors affecting natural increase (i.e. fertility and mortality), our understanding of the process of ethnic mobility and its contribution to Aboriginal population growth remains poorly developed. As a consequence, our ability to accurately forecast Aboriginal population growth and change remains limited, a situation which also detracts from our ability to accurately inform the policy and program development process about changes in the nature and scale of the future service needs of Aboriginal populations.

NOTES

[1] This population has often been referred to as "non-status" Indians in earlier research.

[2] The migration analyses exclude individuals who migrated to Canada from abroad, as well as individuals who migrated from an Indian reserve that was not enumerated by the Census. These groups have been excluded as the reverse migration flows (i.e. from Canada to abroad and from enumerated to non-enumerated Indian reserves) are unknown.

[3] The concepts of reserve/off-reserve residency used in this study are those developed by Indian and Northern Affairs Canada (INAC). The INAC construct includes as reserves some Indian settlements and communities which are not legally defined as reserves under the Indian Act. Census metropolitan areas are urban agglomerations with a minimum core population of 100,000. Urban non-CMAs include all smaller urban centres with a minimum population of 10,000. As configured for this study, the CMA and non-CMA geographies exclude Indian reserves and rural fringe areas that are located within the broader urban area boundaries. Rural areas located with the boundaries of the CMAs and non-CMAs have been included in the rural geography category.

[4] In addition to people missed by the census through non-enumeration, census population estimates are also subject to error due to under-coverage (people missed in areas that were enumerated by the census). Although details of the extent of under-coverage for the 2006 census were not available at the time of the preparation of this paper, past experience suggests that under-coverage in off-reserve areas is the range of 2% to 3%. Under-coverage on reserves has historically been estimated to be significantly higher (in the 8% to 10% range). Variations in under-coverage between successive censuses can also confound estimates of population growth based on the unadjusted census data.

[5] Low rates of mobility on reserve and in rural areas are likely to be linked in part to the housing contexts in these locations. As residential moves form the largest component of mobility, overall mobility rates can be affected by the availability of housing alternatives. In the case of reserves and rural areas, more limited housing opportunities appear to result in lower overall levels of population movement.

[6] Past research has also noted gender differences in location-specific migration rates. Gender- specific estimates calculated for this study for the 2001 to 2006 time period revealed only minor differences in the net migration rates of males and females for all locations.

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