

SEDAP

A PROGRAM FOR RESEARCH ON

SOCIAL AND ECONOMIC DIMENSIONS OF AN AGING POPULATION

**Return and Onwards Migration among Older
Canadians: Findings from the 2001 Census**

K. Bruce Newbold

SEDAP Research Paper No. 171

For further information about SEDAP and other papers in this series, see our web site:
<http://socserv.mcmaster.ca/sedap>

Requests for further information may be addressed to:
Secretary, SEDAP Research Program
Kenneth Taylor Hall, Room 426
McMaster University
Hamilton, Ontario, Canada
L8S 4M4
FAX: 905 521 8232
e-mail: sedap@mcmaster.ca

**Return and Onwards Migration of Older Canadians:
Findings from the 2001 Census**

K. Bruce Newbold

SEDAP Research Paper No. 171

January 2007

The Program for Research on Social and Economic Dimensions of an Aging Population (SEDAP) is an interdisciplinary research program centred at McMaster University with co-investigators at seventeen other universities in Canada and abroad. The SEDAP Research Paper series provides a vehicle for distributing the results of studies undertaken by those associated with the program. Authors take full responsibility for all expressions of opinion. SEDAP has been supported by the Social Sciences and Humanities Research Council since 1999, under the terms of its Major Collaborative Research Initiatives Program. Additional financial or other support is provided by the Canadian Institute for Health Information, the Canadian Institute of Actuaries, Citizenship and Immigration Canada, Indian and Northern Affairs Canada, ICES: Institute for Clinical Evaluative Sciences, IZA: Forschungsinstitut zur Zukunft der Arbeit GmbH (Institute for the Study of Labour), SFI: The Danish National Institute of Social Research, Social Development Canada, Statistics Canada, and participating universities in Canada (McMaster, Calgary, Carleton, Memorial, Montréal, New Brunswick, Queen's, Regina, Toronto, UBC, Victoria, Waterloo, Western, and York) and abroad (Copenhagen, New South Wales, University College London).

**Return and Onwards Migration among Older Canadians:
Findings from the 2001 Census**

K. Bruce Newbold, PhD

School of Geography & Earth Sciences
McMaster University
1280 Main St. West
Hamilton, ON L8S 4K1
Tel. 905-525-9140 x27948
Fax. 905-546-0463
Email. newbold@mcmaster.ca

December 2006

Return and Onwards Migration among Older Canadians: Findings from the 2001 Census

Abstract

Using the 2001 Public Use Microdata Files from Statistics Canada, this paper analyses fixed interval return (migrations returning an individual to a previous place of residence) and onward (migrations to a subsequent destination) migration among Canada's older population (aged 60 and over) over the 1996-2000-2001 period. The article examines the incidence, composition, spatial patterning, and determinants of these chronic migrations. Analysis reveals a migration system that is largely complementary to that observed within the broader population, although onward migration is relatively unimportant for this group, and the motivations and characteristics vary by age group amongst older migrants.

Keywords: elderly mobility, return and onward migration, Canada

JEL Classifications: J11, O15, R23

Résumé :

En s'appuyant sur les données du Fichier de microdonnées à grande diffusion de 2001 de Statistique Canada, cet article analyse le « retour d'intervalle fixe » (retour des migrants vers leur dernier lieu de résidence) et la reprise de migration (migration vers une destination subséquente) chez les Canadiens âgés de plus de 60 ans au cours de la période 1996-2000-2001. L'article examine l'incidence, la composition, le profil spatial, et les causes déterminantes de ces migrations chroniques. L'analyse met en évidence un mécanisme de migration qui est en grande partie complémentaire de celui observé dans la population générale, bien que la reprise de migration soit relativement sans importance pour ce groupe, et que les motivations et caractéristiques varient en fonction de la catégorie d'âge chez les migrants les plus âgés.

Introduction

Over the past two decades, the literature associated with migration amongst the old has grown, providing considerable detail regarding motivations for migrations, spatial patterns, and migration propensities within this age group. Among the old, motivations often include amenity-oriented migration among the ‘young old’ at the time of retirement or shortly afterward (i.e., Litwack and Longino 1987; Longino 1979), kin-oriented migrations, such as the return of African Americans from the north to the south (Stack 1996), and migrations associated with dependency or health needs as individuals age (Hayward 2000; Hayward and Lazarowich 2001; Longino and Serow 1992; Speare *et al.* 1991; Burr and Mutchler 1992). Retirement destinations typically dominate the spatial patterns of return migration, particularly in the United States, where older migration flows tend to be more ‘channelized’, focusing on a few key retirement states in the American West or Southeast (Longino 1995). Although such spatial focusing is less visible in Canada, the western-most province of British Columbia is an important retirement destination, and smaller sub-provincial units across the country have become retirement destinations.

Embedded within these broader discussion of older migrations are return (i.e., migrations returning an individual to an earlier place of residence) and onward (i.e., subsequent migrations which do not return an individual to their previous place of residence) migrations. Previous literature has established the importance of these types of migration as components of migration streams (i.e., Long 1988; Newbold 1996; Rogers 1990; Rogers and Belanger 1990). While research has illuminated general age-related patterns, including variations in the age profiles of return and onward migrations, the literature typically has not focused on the older population specifically. Clearly, it is unreasonable to assume that return and onward migration of the old mirror those of labour-forced aged migrants. Moreover, much of

this literature is based on returns to an individual's place of birth (see, for example, Long 1988; Newbold and Liaw 1994). While revealing spatial preferences and mobility, reliance on the place of birth to define return migration is problematic (Newbold and Bell 2001). This problem is potentially magnified among the older population given the likelihood that they have made multiple moves associated with education and employment opportunities over their lifespan. Consequently, basing return migrations on a previous place of residence, as opposed to place of birth, may be more revealing of migration preferences and patterns among the old.

The purpose of this paper is therefore to contribute further to the understanding of chronic migration – repeated or multiple migrations occurring within a defined period – in terms of Canada's older population. Specifically, the paper examines return and onwards migration among Canada's older population (aged 60 and over) based on the 2001 Canadian census, which has collected information on place of residence at three points in time – Census day, five years prior, and one year prior – since 1991. In doing so, the paper (i) makes comparisons to the overall (aged 20 and over) population, answering the question of 'who moves?' and the importance of chronic migrations among the old relative to aggregate population movements; (ii) distinguishes between returns to the 1996 dwelling and more general returns to the 1996 province of origin; and (iii) distinguishes between the 'young old' and 'old old' by disaggregating the older population by age, reflecting the potential for age-variations in motivations and propensities to engage in return and onwards migration among the older population.

Background: Return and Onward Migration Among the Old

While much of the existing return migration literature ascribes motivations for return migrations to either failed initial migrations (i.e., Grant and Vanderkamp 1986) or planned returns following short-term

relocations for employment, retirement, or educational reasons (i.e., Bell 1996; Newbold and Bell 2001), relatively less discussion is given to the motivations and spatial patterns of return and onwards migration among the older population. Moreover, the research that is available is often based on returns to the place of birth, or so-called lifetime return migrations. While defining return migration in this sense is a useful metric for younger cohorts, its relevance is less meaningful amongst the old, given the likelihood of previous migration experiences associated with work opportunities or employment.

Instead, 'fixed interval' return migrations, which references return migrations to a previous residence, as opposed to the place of birth, may be a more reliable measure of the propensity to return, particularly since location-specific capital is more likely to be embedded in a recent place of residence. Since 1991, Statistics Canada has collected data on usual place of residence both one and five-years prior to the Census enumeration date, enabling return migration to be referenced to a previous place of residence and offering several advantages over return migrations based on place-of-birth data. These advantages include shorter intervals over which migration can be measured, the reduction of the effects of multiple moves in the overall data and capturing 'rapid' return migrations, or those which occur relatively quickly after the initial, primary migration (Linn *et al.* 1999). Furthermore, basing return migration on place of residence five-years prior potentially offers a more accurate measure of migration events and migrant characteristics, given that temporal change to personal effects such as education and employment status are more limited since such variables are less likely to change over the short time interval (Newbold and Bell 2001). The literature has also observed a strong attraction among chronic older migrants toward the location of their adult children, an attraction that was stronger for the widowed and whites (Liaw and Frey 2003).

Typically, chronic migrations among the old are both numerically and proportionately small relative to the overall population (Newbold and Bell 2001). At the same time, however, there is

considerable diversity in the motivations for migration among the older population, with the literature constructing a typology of moves based on their underlying determinants (Litwack and Longino 1987). Although not necessarily sequential, the first migration is typically ‘lifestyle’ or amenity oriented, and more prevalent among the healthy, the ‘young old’, and those with greater disposable income. Lifestyle migrations are often concurrent with retirement, motivated by amenity, cost of living, or housing considerations (Liaw and Ledent 1988; Serow *et al.* 1986). If this migration returns an individual to the place of birth, it may be defined as a *provincial* return migration. As a subset of amenity migrations, provincial return migrants are generally less affluent than other amenity migrants (Longino 1995), with returns most likely undertaken because of existing knowledge of the destination. At the same time, onward migrations motivated by amenity issues are likely, with destinations including places where migrants had previously resided or vacationed (Cuba 1991). The second type of migration is typically motivated by the need for assistance or the desire to be closer to family as personal health declines as opposed to amenity considerations. These migrations tend to occur more frequently among the older old, and may involve widowed individuals or those with poorer levels of health (Hayward 2000; Longino and Serow 1992; Speare *et al.* 1991; Burr and Mutchler 1992). Finally, the third type of migration is often to institutions providing long-term care, typically among the old old.

Given that many migrations among the old are associated with amenity, assistance, or health needs, there is likely some sensitivity to the age patterns of return and onward migrants that also differ from those in the labour force, making them more or less sensitive to engaging in return or onward migrations than younger counterparts. While it is likely that personal attributes such as education are likely to have relatively consistent effects, it is also reasonable to assume that motivations for return migrations amongst the old would be less associated with economic factors such as employment growth, unemployment, or income potential, factors often associated with return migration (Newbold 2001).

Instead, amenity effects and the attraction of retirement destinations are likely important drivers of migration.

Data and Methods

Data for this analysis is derived from Statistics Canada's 2001 Public Use Microdata File (PUMF), a three percent sample of the Canadian population offering information on the place of usual residence at the time of the Census, one year prior to the Census (2000), and five years prior (1996). Migrants and migrations are therefore defined by reference to changes in their usual residence over the 1996-2000 and 2000-01 intervals. The sample population is defined as those aged 60 and over on Census day in 2001, although some comparisons are made to the population aged 20 and over. The sample further excludes the institutionalized population along with those who resided outside the country or did not report a place of residence in Canada on any one of the three dates. In addition, residents of Canada's three northern territories are excluded.

Based on the comparison of place of residence, five distinct groups of migrants could be identified (see Figure 1):

- People who do not migrate between 1996-2001;
- People who made an inter-provincial migration between 1996 and 2000 but did not migrate between 2000 and 2001;
- People whose province of residence was unchanged between 1996 and 2000 but who migrated between 2000 and 2001;
- People who migrated between 1996 and 2000 and who returned to their province of origin between 2000 and 2001;

- People who made an inter-provincial migration between 1996 and 2000 and who migrated again to a different region between 2000 and 2001.

The fourth group can be identified as return migrants, while the fifth group can be defined as onward migrants. Return migrants can be further subdivided to distinguish between those who returned to their 1996 place of residence and those who made a more general return migration to their 1996 province of origin.

The analysis proceeds through two sections, with the first focusing on the return and onward migration components of inter-regional migration of the old (aged 60+) through descriptive measures, including the count and proportion of migrants and migration events. In particular, the analysis focuses on the volume of migration, the personal characteristics of migrants, and spatial patterns. Mobility is measured with reference to the population ‘at-risk’ of making a return or onwards migration (i.e., the population who moved over the 1996-00 migration interval). In some cases and for purposes of presentation, provincial flows were aggregated to regional flows (Atlantic Canada, Quebec, Ontario, Prairies, and British Columbia) due to sparse place-to-place flows among the old.

The second section explores the determinants of older chronic migrations using binomial logistic models. Theoretically, the choices available to a potential migrant can be structured and modeled within multiple levels, including the departure, destination, and return and onward choice (see, for example, Newbold and Liaw 1994). For analytical convenience, the out-migration decision is focused upon in this paper. In addition, given relatively sparse return and onward flows among the older population, their migration is set within the context of movements made by the population aged 20 and over, with interaction terms between age and personal factors (i.e., education, marital status) and age and provincial effects (i.e., climate, economic indicators) capturing age-dependent effects. The analytical model is defined by the following generic model:

$$\log\left(\frac{P_m}{1-P_m}\right) = \alpha + \beta X_i$$

where P_m represents the probability of a migration and X_i is a vector of attributes personal and provincial attributes that defines the utility associated with migration. Two models are estimated, including (i) the decision to make a chronic (return or onward) migration in 2000-01 versus staying; and (ii) the decision to make a return to the home versus a general return migration. In both models, the direct effects (personal and provincial attributes) are forced into the model specification, while the age-dependent interaction terms are entered through stepwise regression. Variables significant at the $p < 0.05$ level were entered and retained within the models, with both the set of included and excluded variables checked for endogeneity and appropriateness relative to the literature.

The likelihood of migration is based on individual assessments of utility, expressed as a function of personal factors and a series of explanatory variables, selected based on previous results and migration theory. Personal attributes include *level of education* (less than high school, some post-secondary education, and Bachelor's degree or better); *tenure status* (own or rent residence); *marital status* (divorced-single-widowed, married, single (never married)); *age* (20-59¹, 60-69, 70-79, 80+); *immigrant status* (immigrant or native-born); *native-tongue* (English, French, other), and *sex*.

Provincial effects include *per capita income*, *unemployment rate*, and *employment growth rate* for the 2000-2001 period to represent the economic opportunities in each province. Per capita income, unemployment, and employment growth rates represent the 2000-01 average value for each province. *Total population share*, defined by the province's 2001 proportional population share of the national population, was included to represent the availability of high-level service and general economic opportunities in each province. To represent the quality of the physical environment, an average index of *coldness* is used to represent the annual number of degree-days below 18°C, and *sun* captures the average

¹ For the purposes of comparison, the old are compared to the broad labour-force aged population in the multivariate analysis. This group is not considered in the descriptive analysis portions of this paper.

number of sunny days. The preference for living in a familiar cultural milieu is represented by *cultural similarity*, which reflects the cultural and language heterogeneity of Canada, with migration patterns strongly influenced by French and English language differences (Liaw 1990). Cultural similarity is defined as the proportional share of the 1996 provincial population by ethnic group that matched the mother tongue of the individual.

Results

Counting Older Migrants and Migrations

Table 1 sets out the breakdown of inter-regional migration between 1996-2000-2001, divided according to the type of move and the timing of the move for individuals aged 60 and over. In order to effectively examine chronic migration, a distinction must be made between migrants and migration. The former refers to the number of individuals that make one or more moves during the observed period, while the latter refers to the aggregate number of moves recorded (Newbold 2001). Since some people move more than once, the number of movers is typically smaller than the number of moves. Therefore, by combining data from 1996-2000 and 2000-01, Table 1 indicates a total of 69,923 inter-provincial migrations by the old. However, since some of these moves represent people who migrated in both the 1996-00 and 2000-01 intervals, the total number of migrants is determined by subtracting all return and onward moves, leaving a total of 66,969 older migrants. If data were limited solely to the transitions between 1996 and 2000, with no information on place of residence in 2000, the number of older migrants would be further reduced to 64,311, since no return migrations would be identified (Newbold 2001).

Table 1 also indicates the intensity of chronic migration during the period. Of the more than two million older migrants in the 1996-00-01 interval, 2,954 made inter-provincial moves in both periods. Of

these, 2,658, or nearly 90 percent of all chronic migrants returned to their 1996 place of origin. While large, the percentage engaging in a return migration is not all that different from what is observed elsewhere, although returns typically represent approximately 80 percent of repeat migration flows (Newbold 2001). Return migration can be further divided, revealing that approximately 39 percent of all return migrants (1,144) returned to their origin (1996) dwelling, while the remainder returned to their province of residence in 1996. Only a small number (296) of older migrants participated in an onward migration, perhaps reflecting limited options or reasons for engaging in this sort of migration, and/or the relatively short time-frame over which these migrations would have occurred.

The significance of return and onward migration can be noted by examining the 2000-01 flow values. Of those who moved outside their place of origin over the one-year period (2000-01), 20.3 percent had made a previous inter-provincial move between 1996 and 2000. Therefore, 18.3 percent of all 2000-01 migrants were returning to the region where they originally resided in 1996. Contrary to earlier work, only a small proportion (2 percent) engaged in onward migration.

Comparing to the broader (aged 20+) population (results not shown), a smaller proportion (approximately 75 percent) of repeat migrants returned to their 1996 place of residence. Of these, 29 percent returned to their 1996 dwelling. Conversely, onward migrations accounted for 8.8 percent of repeat migrations in 2000-01, while 27.2 percent were returning to their 1996 province of residence. As such, while returns to the previous dwelling are equally important and likely in both the older and overall (aged 20+) population (as measured relative to the 2000-01 flows), both onward and return migrations would appear to be somewhat more important among the total population, despite the expectation of the importance of return migrations among the old.

Personal Characteristics

Table 2 references rates of return and onward migration for a set of personal characteristics among the old. Overall, the results are largely consistent with expectations and while rates of migration are relatively low, they are not unexpected for the age group. For example, individuals aged 60-69 tended to represent the near majority of both return and onward migrations, accounting for between 45 and 50 percent of all moves and potentially reflecting both the ability to migrate and a wider range of destination options incorporating amenity destinations as well as locations of previous residence or where family and friends are found. However, the propensity to return to the 1996 dwelling tended to peak among those aged 80 and over, while both other returns and onward migrations peaked amongst those aged 70-79. No onward migrations were recorded for those 80 and over.

Gender variations in return and onward migration are also apparent, with females tending to predominate in all three groups, but especially for 'other returns' and onward migrations, where they represent greater than 60 percent of all migrations. Returns among the older population may be triggered by the need for health care, death of a spouse, or other circumstances, although relatively few of these are likely to occur within five years of the initial migration, with such migrations missed by the short, fixed interval used here (Newbold and Bell 2001). With respect to educational attainment, both return and onward migrations are dominated by individuals with less than a high school education, although there is little evidence of an age-educational profile. That is, for example, returns to the same dwelling and onward migrations were greatest amongst the better educated (those with a Bachelors degree or better), while the poorly educated (those with less than a high school education) were the most likely to return elsewhere.

Marital status poses an interesting contrast. While a small majority of return migrants were married, return migration propensities were highest among the divorced-separated-widowed, supporting arguments that return migration is facilitated by the death of a partner. Not surprisingly, the native-born

represent the majority of chronic migrants, although the foreign-born generally had somewhat higher return migration propensities. Finally, French speakers had a somewhat lower propensity to return than either English or other (non-official) language speakers.

Somewhat different profiles are evident between individuals returning to their 1996 dwelling, and those making 'other' return migrations, with returns to the previous dwelling peaking later (aged 80+) than other returns, which peaked among the 70-79 year olds. Rates of 'other return' migrations tended to be highest for individuals who were poorly educated (having less than a high school education or those with some university and college), French speakers, females, renters, and those who were divorced, separated, or widowed. Moreover, over 56 percent lived in rental accommodations following their return moves, in comparison to the nearly 68 percent of individuals returning to their previous dwelling who were also owners, reinforcing the idea of a planned return. For others, return migration may simply be one move in a series of migrations, potentially leading to residency within a long-term care environment.

Spatial Patterns of Older Chronic Migration

Table 3 sets out the rates of older return migration with respect to origin and destination regions, with the former representing the ability of each region to retain in-migrants, and the latter the ability to regain former out-migrants.² On average, 4.8 percent of the 1996-2000 inflow was lost through return migration, although there was considerable variation about the mean value. British Columbia, a long-time retirement and high-amenity destination, attracted some 13,743 older migrants between 1996 and 2000, and demonstrated a concomitantly strong ability to retain its in-migrants, with just 3.8 percent making a return out-migration between 2000 and 2001. Quebec, while attracting a relatively modest number of in-migrants (3,725), also exhibited a strong retention rate (3.0 percent), most likely reflecting language

² Provinces were aggregated to regions for Tables 3 and 4 given sparse flows to some provincial units.

differences and the retention of Francophone speakers. The Atlantic and Prairie provinces had relatively high out-migration rates amongst their 1996-2000 in-migrants.

In terms of regional variations to regain previous out-migrants, Quebec's attraction was similar to the overall rate (4.3 percent). British Columbia again demonstrated its on-going role within the Canadian inter-provincial migration system, with an attraction rate of 6.3 percent. Not surprisingly, the Atlantic provinces had the lowest attraction rate (3.7 percent). While return migration has been noted as an important source of in-migrants to these provinces, it does not appear to function over the relatively short-term. In other words, return migrants to this region had most likely left at a much earlier time in search of employment, returning upon retirement, and are therefore missed over the relatively short-time frame of the current analysis.

Population Re-Distribution due to Chronic Migration

Table 4 represents the extent of population re-distribution within the Canadian system, measured by net migration among the old. As observed within the broader literature, return migration generally worked counter to both primary and onward migration, reducing gains or losses associated with both. Concurrently, while onward migration has typically been noted to reinforce the effect of primary migration in the broader literature, its effect here was less consistent, although quantitatively limited. For example, onward migration reinforced the effects of return migration in the case of Ontario and the Prairies.

In relation to migrations during the 2000-01 interval, the bulk of the demographic impact associated with migration was due to single, one-year migrations over the 2000-01 period. In other words, the demographic effect of single-year migrations often exceeded that of the net impact of chronic migrations. For instance, Atlantic Canada's net gain in the 2000-01 period was largely due to single

migrations (555), while it was reduced somewhat by return migration (-258) as noted above. Similarly, Quebec's net loss was due to single migrations out of the province between 2000 and 2001, although it had a modest net gain of return migrants during the same period. Only in British Columbia is the effect different. In this case, its net gain over the 2000-01 interval was due primarily to return migration, with a modest gain also associated with one-year migration.

Once again, the character and spatial patterns of migration are visible, with Quebec experiencing a net loss in both 1996-2000 and 2000-01, and again likely reflecting its on-going loss due to language differences and the out-migration of English-speakers. British Columbia, on the other hand, had a net in-migration in both periods, reflecting its role as a retirement destination. The net gain observed in Atlantic Canada is likely due to the return of retirement-aged individuals who had left the region at a much earlier date in search of employment opportunities, and therefore are not counted as return migrants in this analysis.

Determinants of Older Chronic Migration

Tables 5 and 6 present the results of two logistic regressions, including (i) the decision to make a chronic (return or onward) migration in 2000-01 versus staying; and (ii) the decision to make a return to the home versus a general return migration in 2000-01. Both models are estimated using measures of personal attributes and provincial variables (or regional dummies) to define the utility function. Recalling that the models incorporated migration decisions for the population aged 20 and over, interaction effects between age and individual factors were introduced through stepwise regression to examine age specific effects. Model estimation required that the 80 and over age group be merged with the 70 to 79 age group.

With a rho-square of 0.235, Model 1 (Table 5) explores the decision to engage in a return migration to the 1996 dwelling or a more general return migration to the 1996 province of residence. In

this case, rather than a set of provincial attributes that would be common in both choice sets (to return home or to return to the province) a set of regional dummy variables was included that captures the 2000 place of residence. In effect, these ask the question whether or not individuals were more likely to return migrate from particular regions. Overall, the variables performed as expected. For example, the ‘young old’ (aged 60-69) were more likely to return to their previous dwelling, a phenomenon noted in the case of Australia by Newbold and Bell (2001). In addition, home owners and residents of Atlantic Canada in 2000 were more likely to return to their 1996 dwelling. Conversely, individuals who were married or were French speakers were less likely to return to their earlier residence. Interactions between the various personal effects and age provide additional insight into chronic mobility among the old, with two interaction effects included in Model 1. First, reinforcing the age and home ownership effects already noted, home owners aged 60 to 69 were more likely to return home, perhaps reflecting post-retirement migrations and a home relocation. Married individuals aged 70 and over were more likely to return home.

Model 2 (Table 6) represents the decision to engage in a chronic migration (either return or onward) versus staying in the 2000 place of residence. With a rho-square of 0.111, the model fit is not as good as that noted for the first model, although the estimated relationships are as expected. In terms of personal attributes, males and individuals who speak either French or English were more likely to engage in a chronic migration over the 2000-01 period, as opposed to staying. At the same time, the old (aged 60 and greater) are less likely to engage in a chronic migration as compared to their younger (aged 20-64) counterparts. In addition, individuals with lower levels of education (less than a Bachelors), immigrants, home owners, and married individuals were less likely to make a chronic migration. In terms of provincial attributes, individuals were less likely to make a chronic migration out of provinces with a large population, higher employment growth, and that shared a similar cultural makeup. Interestingly, there is no indication that potential migrants were affected by amenity effects as represented by sunshine and

coldness, even when interacted with age to capture potential migrations among the old. Finally, interactions with age suggested that immigrants aged 60 and over were more likely to make a chronic migration than their younger counterparts.

Conclusions

Defining return migration as movements which return an individual to their place of residence five-years prior to the census, this paper has examined return and onward migration in the context of Canada's older population, aged 60 and over, as of 2001. Underlying this inquiry is the need to understand chronic migration, and more specifically return migration among Canada's older population, along with age variations in chronic migration. A mix of multivariate and descriptive techniques helped to identify the attributes of these older chronic migrants.

Overall, the rates of return and onward migration observed among the old are comparatively low. Although consistent with the well-established age-propensities of migration, the low rates may also be an artifact of the fixed interval data used in this analysis. In other words, return migrations following a retirement move owing to health, dependency, or other needs are likely undercounted among the old, given returns likely occur over a longer period than captured by the fixed interval used in this study. The propensity to engage in an onward migration is particularly low among the old and may reflect the importance of knowledge of the destination – knowledge that is gained by previous residency – in shaping the migration decision. In fact, it may be that many of the single-year migrations reflect movements associated with health or dependency needs, including moves to be closer to adult children (Liaw and Frey 2003).

In general, return and onwards migration among the old is consistent with migration theory and results derived from both lifetime and fixed interval analyses, based on three broad similarities. First, although it was hypothesized that return migrations would be comparatively important among the old, return migration propensities of the old tended to be less than that observed in the broader population, excepting returns to the 1996 dwelling. Older individuals were generally less likely to engage in any form of chronic migration, although there was some evidence of increased migration propensities between 2000 and 2001. Second, in terms of personal attributes, older return migrants are similar in many ways to the general characteristics of return migrants, with a tendency to be better educated and home owners. With respect to age, returns to the 1996 dwelling were somewhat more important amongst the oldest old (aged 80 and over), most likely corresponding to returns home for care and/or returns to their own dwelling following a short-term stay in a continuing care or group home. Third, primary, return, and onward migrations among the old have similar spatial effects to those observed more broadly within the literature. For instance, despite including interaction effects between age and provincial attributes, these effects were not statistically significant. In other words, while older return or onward migrants appear to move toward provinces with higher employment growth or personal incomes, they are likely not moving for these reasons *per se*. However, their movement reflects broader spatial patterns of migration in Canada. That is, provinces that are attractive to labour-force aged individuals are also attractive to the old. In part, this could reflect older individuals following their adult children across the country (Liaw and Frey 2003). This is also reflected in the sense that return migrations tended to work counter to the net migration effects of primary and onward migration. Moreover, British Columbia displayed a strong attraction and retention powers for older migrants, with the province known as an important retirement destination. Concurrently, Quebec lost migrants, consistent with the broader literature, and most likely represents the on-going exodus of both English speakers from the province, and potentially ethnic minority individuals.

Still, some differences were observed. For example, although married individuals dominated chronic migration flows, the divorced-separated-widowed were more likely to make a chronic migration. In addition, onward migration is relatively rare amongst the old. This suggests that return migrations, when they do occur, dominate the decision process and reflect existing knowledge of a destination and/or the location of capital, family, or friends. Spatial scale is, however, key to this distinction, with smaller spatial scales offering greater opportunities for onward migration (Newbold 2001), and therefore represent an avenue of further research. Another avenue for further exploration would include a larger sample of return and onward migrants, such that multivariate analyses could be conducted without the need to include the broader population to ensure consistent results. In this way, key attributes and determinants of return and onwards migration amongst the old could be teased out.

References

- Bell, M. 1996. "Repeat and return migration." Pp. 1-17 in *Population shift: Mobility and Change in Australia*, edited by P.W. Newton and M. Bell. Canberra: Australian Government Publishing Service.
- Burr, J.A., & J.E. Mutchler (1992). "The living arrangements of unmarried elderly Hispanic females." *Demography* 29, 93-112.
- Cuba, L. (1991). "Models of migration decision making re-examined: The destination search of older migrants to Cape Cod." *The Gerontologist* 31, 204-209.
- Grant, E.K., & J. Vanderkamp (1986). "Repeat migration and disappointment." *Canadian Journal of Regional Science* 9, 299-322.
- Hayward, L. (2000). *Health and residential mobility in later life*. SEDAP Research paper No. 34. McMaster University: Hamilton ON.
- Hayward, L. & N.M. Lazarowich (2001). *Cohort survival is not enough: Why local planners need to know more about the residential mobility of the elderly*. SEDAP Research paper No. 53. McMaster University: Hamilton ON.
- Liaw, K.L. (1990). "Joint effects of personal factors and ecological variables on the inter-provincial migration patterns of young adults in Canada." *Geographical Analysis* 22, 189-208.
- Liaw, K.L. & W. Frey (2003). "Location of adult children as an attraction for black and white elderly return and onward migrants in the United States: Application of a three-level nested logit model with census data." *Mathematical Population Studies* 10, 75-98.
- Liaw, K.L. & J. Ledent (1988). "Joint effects of ecological and personal factors on elderly interprovincial migration in Canada." *Canadian Journal of Regional Science* 11(1), 77-100.
- Lin J.P., K.L. Liaw & C.L. Tsay (1999). "Determinants of fast return migration of the labour force: Evidence from the National Survey of Taiwan." *Environment and Planning A* 31, 925-945.
- Litwack, E. & C.F. Longino (1987). "Migration patterns among the elderly: A developmental perspective." *Gerontologist* 27, 266-272.
- Long, L. (1988). *Migration and Residential Mobility in the United States*. New York: Russell Sage Foundation.
- Longino, C.F. & W.J. Serow (1992). "Regional differences in the characteristics of elderly return migrants." *Journal of Gerontology: Social Sciences* 47(1), S38-S43.
- Longino, C.F. (1979). "Going home: Aged return migration in the United States, 1965-1970." *Journal of Gerontology* 34, 736-745.

- Longino, C.F. (1995). *Retirement Migration in America*. Houston: Vacation Publications.
- Newbold, K.B. (2001). "Counting Migrants and Migrations: Comparing Lifetime and Fixed-Interval Return and Onward Migration." *Economic Geography* 77(1), 23-40.
- Newbold, K.B. & K.L. Liaw (1994). "Return and onward interprovincial migration through economic boom and bust in Canada from 1976-81 to 1981-86." *Geographical Analysis* 26, 228-245.
- Newbold, K.B. & M. Bell (2001). "Return and Onward Migration in Canada and Australia: Evidence from Fixed Interval Data." *International Migration Review* 35(4), 1157-1184.
- Serow, W.J., D.A. Charity, G.M. Fournier & D.W. Rasmussen (1986). "Cost of living differentials and elderly interstate migration." *Research on Aging* 8, 317-327.
- Speare, A., R. Avery & L. Lawton (1991). "Disability, residential mobility and changes in living arrangements." *Journal of Gerontology: Social Sciences* 47, S289-296.
- Stack, C. (1996). *Call to Home: African Americans Reclaim the Rural South*. New York, NY: Basic Books.

1. → Stayer, 1996-00 and 2000-01
2. →○ Migrant, 1996-00 and Stayer, 2000-01
3. ○ → Stayer, 1996-00 and Migrant, 2000-01
4. ↔ Migrant, 1996-00-01, and returned to 1996 origin
5. → → Migrant, 1996-00-01

Figure 1. Migrant Types, Canada 1996-2000-2001.

Table 1. Return and onward migration: 1996-00-01, Aged 60+

Type of migration	Number	2000-01	1996-01	All	Total
Did not migrate	4,766,845				
Return migration					
To dwelling	1,144	7.9	2.1	1.6	0.0
To province	1,514	10.4	2.7	2.2	0.0
Total return	2,658	18.3	4.8	3.8	0.1
Onward migration	296	2.0	0.5	0.4	0.0
Total multiple	2,954	20.3	5.3	4.2	0.1
Migrated 2000-01 only	11,600	79.7	21.0	16.6	0.2
All 2000-01 migrations	14,554	100.0	26.3	20.8	0.3
Migrated 1996-00 only	52,415		94.7	75.0	1.1
All 1996-00 migrations	55,369		100.0	79.2	1.1
Total migrations	69,923			100	1.4
Total migrants	66,969				1.4
Recorded migrations 1996-01	64,311				1.3
Total Population	4,833,813				100.0

Table 2. Return and onward migration by personal attributes among Canada's old: 1996-00-01

	Percent of Total				Percent of 1996-00 moves			
	Return to Same dwelling	Other Return	All Returns	Onward Migration	Return to Same dwelling	Other Return	All Returns	Onward Migration
Age:								
60-69	45.2	46.3	45.8	50.2	1.8	2.5	4.3	0.5
70-79	25.8	39.0	33.3	49.8	2.0	3.9	5.9	1.0
80+	29.0	14.7	20.8	0.0	5.0	3.3	8.3	0.0
Total	100.0	100.0	100.0	100.0	2.3	3.0	5.3	0.6
Sex:								
Female	51.7	68.3	61.2	62.7	2.2	3.8	6.0	0.7
Male	48.3	31.6	38.8	37.6	2.4	2.1	4.5	0.5
Total	100.1	99.9	100.0	100.3	2.3	3.0	5.3	0.6
Tenure Status:								
Owned	72.5	42.5	55.1	37.5	2.4	2.0	4.4	0.3
Rented	27.5	57.5	44.9	62.5	1.7	4.9	6.7	1.1
Total	100.0	100.0	100.0	100.0	2.2	3.0	5.2	0.6
Education Status:								
< HS	48.4	58.6	54.2	25.1	2.6	4.1	6.6	0.3
Some Uni	32.3	29.3	30.5	50.2	1.8	2.1	3.9	0.7
BA+	19.4	12.2	15.3	25.1	3.1	2.5	5.6	1.0
Total	100.0	100.0	100.0	100.3	2.3	3.0	5.3	0.6
Immigrant Status:								
Native-born	67.8	70.7	69.5	50.0	2.2	3.0	5.1	0.4
Immigrant	32.2	29.2	30.5	50.0	2.7	3.2	5.9	1.1
Total	100.0	99.9	100.0	100.0	2.7	3.2	5.9	1.1
Language:								
English	71.0	65.9	68.1	50.0	2.4	2.9	5.3	0.4
French	3.2	12.2	8.3	25.0	0.8	3.8	4.6	1.5
Other	25.9	21.9	23.6	25.0	2.8	3.1	5.9	0.7
Total	100.0	99.9	100.0	100.0	2.3	3.0	5.3	0.6
Marital Status:								
DSW	25.9	56.1	43.1	49.8	1.5	4.3	5.8	0.7
Married	58.1	39.0	47.3	50.2	2.4	2.2	4.6	0.5
Single	16.1	4.8	9.7	0.0	6.5	2.6	9.0	0.0
Total	100.0	99.9	100.0	100.0	2.3	3.0	5.3	0.6

Table 3. Interprovincial return migration among Canada's old: 1996-00-01

	2000-01 loss of 1996-00 in-migrants			2000-01 gain of 1996-00 out-migrants		
	Inflows	Returns	%	Outflows	Returns	%
	1996-00	2000-01		1996-00	2000-01	
Atlantic	7,077	480	6.8	6,049	222	3.7
Quebec	3,725	111	3.0	8,643	369	4.3
Ontario	14,071	517	3.7	12,663	629	5.0
Prairies	16,753	1,035	6.2	16,819	738	4.4
BC	13,743	517	3.8	11,195	702	6.3
Total	55,369	2,660	4.8	55,369	2,660	4.8

Table 4. Net gains and losses from return and onward migration among Canada's old: 1996-00-01

	Net Migration		Net migration 2000-01		
	1996-00	From return migration	From onward migration	From single migration	Total
Atlantic	1,249	-258	37	555	334
Quebec	-5,176	258	0	-664	-406
Ontario	1,185	112	111	-260	-37
Prairies	342	-297	-111	327	-81
BC	2,400	185	-37	42	190
Total	0	0	0	0	0

Table 5. Logistic regression of return home versus general return migration, 2000-01.

		Coefficient	<i>t</i> -score
Constant		-2.184	-6.75
Personal Attributes:			
Sex	Male	0.210	1.56
Age	60-69	2.342	3.99
	70+	0.080	0.13
Education	< High School	0.084	0.39
	Some post secondary	0.241	1.52
Tenure Status	Own	2.504	15.64
Immigrant Status	Immigrant	0.168	0.68
Marital status	Married	-1.090	-6.87
Language ability	English	-0.458	-1.84
	French	-0.436	-2.64
2000 Region of residence	Atlantic	0.784	3.70
	Quebec	0.260	0.90
	Ontario	-0.277	-1.34
	Prairies	0.033	0.16
Interaction Effects:			
	Aged 60-69 * own	-2.249	-2.93
	Aged 70+ * married	2.331	2.73
Rho-squared		0.235	
Likelihood ratio		426.687	
N		1,501	
% Concordant		81.4	

Table 6. Logistic results of chronic migration versus staying, 2000-01

		Coefficient	<i>t</i> -score
Constant		-4.901	-1.00
Personal Attributes:			
Sex	Male	0.138	306
Age	60-69	-1.740	-8.60
	70+	-1.730	-9.31
Education	< High School	-1.117	-15.89
	Some post secondary	-0.659	-12.50
Tenure Status	Own	-1.026	-21.2
Immigrant Status	Immigrant	-0.313	-3.44
Marital status	Married	-0.708	-13.54
Language ability	English	0.407	4.50
	French	0.360	5.75
Provincial Effects:			
Sun		-0.955	-0.53
Cold		0.237	0.95
Population		-0.071	-2.68
Unemployment rate		-0.087	-0.79
Employment growth		-0.122	-2.17
Personal income		0.142	1.25
British		-0.018	-3.03
French		0.002	0.36
Interaction Effects:			
	Age 60-69*immigrant	0.878	2.44
	Aged 70+*immigrant	0.750	2.20
Rho-squared		0.111	
Likelihood ratio		2,938.673	
N		566,594	
% Concordant		74.1	

SEDAP RESEARCH PAPERS: Recent Releases

Number	Title	Author(s)
(2004)		
No. 114:	The Politics of Protest Avoidance: Policy Windows, Labor Mobilization, and Pension Reform in France	D. Béland P. Marnier
No. 115:	The Impact of Differential Cost Sharing of Non-Steroidal Anti-Inflammatory Agents on the Use and Costs of Analgesic Drugs	P.V. Grootendorst J.K. Marshall A.M. Holbrook L.R. Dolovich B.J. O'Brien A.R. Levy
No. 116:	The Wealth of Mexican Americans	D.A. Cobb-Clark V. Hildebrand
No. 117:	Precautionary Wealth and Portfolio Allocation: Evidence from Canadian Microdata	S. Alan
No. 118:	Financial Planning for Later Life: Subjective Understandings of Catalysts and Constraints	C.L. Kemp C.J. Rosenthal M. Denton
No. 119:	The Effect of Health Changes and Long-term Health on the Work Activity of Older Canadians	D. Wing Han Au T.F. Crossley M. Schellhorn
No. 120:	Pension Reform and Financial Investment in the United States and Canada	D. Béland
No. 121:	Exploring the Returns to Scale in Food Preparation (Baking Penny Buns at Home)	T.F. Crossley Y. Lu
No. 122:	Life-cycle Asset Accumulation and Allocation in Canada	K. Milligan
No. 123:	Healthy Aging at Older Ages: Are Income and Education Important?	N.J. Buckley F.T. Denton A.L. Robb B.G. Spencer
(2005)		
No. 124:	Exploring the Use of a Nonparametrically Generated Instrumental Variable in the Estimation of a Linear Parametric Equation	F.T. Denton
No. 125:	Borrowing Constraints, The Cost of Precautionary Saving, and Unemployment Insurance	T.F. Crossley H.W. Low

SEDAP RESEARCH PAPERS: Recent Releases

Number	Title	Author(s)
No. 126:	Entry Costs and Stock Market Participation Over the Life Cycle	S. Alan
No. 127:	Income Inequality and Self-Rated Health Status: Evidence from the European Community Household Panel	V. Hildebrand P. Van Kerm
No. 128:	Where Have All The Home Care Workers Gone?	M. Denton I.U. Zeytinoglu S. Davies D. Hunter
No. 129:	Survey Results of the New Health Care Worker Study: Implications of Changing Employment Patterns	I.U. Zeytinoglu M. Denton S. Davies A. Baumann J. Blythe A. Higgins
No. 130:	Does One Size Fit All? The CPI and Canadian Seniors	M. Brzozowski
No. 131:	Unexploited Connections Between Intra- and Inter-temporal Allocation	T.F. Crossley H.W. Low
No. 132:	Grandparents Raising Grandchildren in Canada: A Profile of Skipped Generation Families	E. Fuller-Thomson
No. 133:	Measurement Errors in Recall Food Expenditure Data	N. Ahmed M. Brzozowski T.F. Crossley
No. 134:	The Effect of Health Changes and Long-term Health on the Work Activity of Older Canadians	D.W.H. Au T. F. Crossley M.. Schellhorn
No. 135:	Population Aging and the Macroeconomy: Explorations in the Use of Immigration as an Instrument of Control	F. T. Denton B. G. Spencer
No. 136:	Users and Suppliers of Physician Services: A Tale of Two Populations	F.T. Denton A. Gafni B.G. Spencer
No. 137:	MEDS-D USERS' MANUAL	F.T. Denton C.H. Feaver B.G.. Spencer

SEDAP RESEARCH PAPERS: Recent Releases

Number	Title	Author(s)
No. 138:	MEDS-E USERS' MANUAL	F.T. Denton C.H. Feaver B.G. Spencer
No. 139:	Socioeconomic Influences on the Health of Older Canadians: Estimates Based on Two Longitudinal Surveys (Revised Version of No. 112)	N.J. Buckley F.T. Denton A.L. Robb B.G. Spencer
No. 140:	Developing New Strategies to Support Future Caregivers of the Aged in Canada: Projections of Need and their Policy Implications	J. Keefe J. Légaré Y. Carrière
No. 141:	Les Premiers Baby-Boomers Québécois font-ils une Meilleure Préparation Financière à la Retraite que leurs Parents? Revenu, Patrimoine, Protection en Matière de Pensions et Facteurs Démographiques	L. Mo J. Légaré
No. 142:	Welfare Restructuring without Partisan Cooperation: The Role of Party Collusion in Blame Avoidance	M. Hering
No. 143:	Ethnicity and Health: An Analysis of Physical Health Differences across Twenty-one Ethnocultural Groups in Canada	S. Prus Z. Lin
No. 144:	The Health Behaviours of Immigrants and Native-Born People in Canada	J.T. McDonald
No. 145:	Ethnicity, Immigration and Cancer Screening: Evidence for Canadian Women	J.T. McDonald S. Kennedy
No. 146:	Population Aging in Canada: Software for Exploring the Implications for the Labour Force and the Productive Capacity of the Economy	F.T. Denton C.H. Feaver B.G. Spencer
(2006)		
No. 147:	The Portfolio Choices of Hispanic Couples	D.A. Cobb-Clark V.A. Hildebrand
No. 148:	Inter-provincial Migration of Income among Canada's Older Population:1996-2001	K.B. Newbold
No. 149:	Joint Taxation and the Labour Supply of Married Women: Evidence from the Canadian Tax Reform of 1988	T.F. Crossley S.H. Jeon
No. 150:	What Ownership Society? Debating Housing and Social Security Reform in the United States	D. Béland

SEDAP RESEARCH PAPERS: Recent Releases

Number	Title	Author(s)
No. 151:	Home Cooking, Food Consumption and Food Production among the Unemployed and Retired Households	M. Brzozowski Y. Lu
No. 152:	The Long-Run Cost of Job Loss as Measured by Consumption Changes	M. Browning T.F. Crossley
No. 153:	Do the Rich Save More in Canada?	S. Alan K. Atalay T.F. Crossley
No. 154:	Income Inequality over the Later-life Course: A Comparative Analysis of Seven OECD Countries	R.L. Brown S.G. Prus
No. 155:	The Social Cost-of-Living: Welfare Foundations and Estimation	T.F. Crossley K. Pendakur
No. 156:	The Top Shares of Older Earners in Canada	M.R. Veall
No. 157:	Le soutien aux personnes âgées en perte d'autonomie: jusqu'où les baby-boomers pourront-ils compter sur leur famille pour répondre à leurs besoins ?	J. Légaré C. Alix Y. Carrière J. Keefe
No. 158:	Les générations X et Y du Québec, vraiment différentes des précédentes ?	J. Légaré P.O. Ménard
No. 159: French	La diversification et la privatisation des sources de revenu de retraite au Canada	L. Mo J. Légaré L. Stone
No. 159: English	The Diversification and the Privatization of the Sources of Retirement Income in Canada	L. Mo J. Légaré L. Stone
No. 160:	Evaluating Pension Portability Reforms: The Tax Reform Act of 1986 as a Natural Experiment	V. Andrietti V.A. Hildebrand
No. 161:	Estimating a Collective Household Model with Survey Data on Financial Satisfaction	R. Alessie T.F. Crossley V.A. Hildebrand
No. 162:	Physician Labour Supply in Canada: A Cohort Analysis	T.F. Crossley J. Hurley S.H. Jeon
No. 163:	Tax Incentives and Household Portfolios: A Panel Data Analysis	S. Alan S. Leth-Petersen

SEDAP RESEARCH PAPERS: Recent Releases

Number	Title	Author(s)
No. 164:	The Healthy Immigrant Effect and Immigrant Selection: Evidence from Four Countries	S. Kennedy J.T. McDonald N. Biddle
No. 165:	Well-Being Throughout the Senior Years: An Issues Paper on Key Events and Transitions in Later Life	M. Denton K. Kusch
No. 166:	Satisfied Workers, Retained Workers: Effects of Work and Work Environment on Homecare Workers' Job Satisfaction, Stress, Physical Health, and Retention	I.U. Zeytinoglu M. Denton
No. 167:	Contrasting Inequalities: Comparing Correlates of Health in Canada and the United States	H. Armstrong W. Clement Z. Lin S. Prus
(2007)		
No. 168:	Health human resources planning and the production of health: Development of an extended analytical framework for needs-based health human resources planning	S. Birch G. Kephart G. Tomblin-Murphy L. O'Brien-Pallas R. Alder A. MacKenzie
No. 169:	Gender Inequality in the Wealth of Older Canadians	M. Denton L. Boos
No. 170:	The Evolution of Elderly Poverty in Canada	K. Milligan
No. 171:	Return and Onwards Migration among Older Canadians: Findings from the 2001 Census	K.B. Newbold