HOME ALONE: DETERMINANTS OF LIVING ALONE AMONG

OLDER IMMIGRANTS IN CANADA AND THE U.S.*

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Abstract

We use 2006 Canadian census and 2006 American Community Survey data to examine determinants of living alone among non-married older immigrants, aged 55 and older, in Canada and the U.S. Lower percentages of older immigrants in both countries live alone compared to native-born elderly, but the large gaps are substantially reduced once various explanatory variables are taken into account. Comparisons of four gender/country groups of older immigrants (female/Canada, male/Canada, female/U.S., male/U.S.) confirm the positive effects of economic (income, education, homeownership) and acculturation (duration of residence, language proficiency) factors on living alone among older immigrants. With few exceptions, determinants of living alone are similar for older immigrants in Canada and the U.S., suggesting that living alone is mainly explained by a combination of economic and acculturation factors, taking demographic variables into account.

INTRODUCTION

Studying the living arrangements of older or elderly populations is important as these affect and reflect family type and household structure among older people.[1] These are in turn related to social support, inter-generational relations, health status, social isolation, and general wellbeing (see for example Gee, 2000; Gaymu et al., 2012; Lee, 2005; Wister, 1990). An older person living alone has different family and social relations from another living with a spouse or partner, or co-residing in a multi-generational family with an adult son or daughter and grandchildren.

Residential options for older people include living alone if not married or partnered; living with spouse or partner only if married or partnered; co-residence with family members or extended family living; co-residence with non-family members; and institutional living, including retirement homes and assisted living facilities. Researchers often refer to the first two types of living arrangements (that is, living alone if not married or partnered, and living with spouse or partner only if married or partnered) as residential independence or independent living arrangements (Burr and Mutchler, 2007; Lee and Edmonston, forthcoming; Wilmoth, 2001).

Rise in Independent Living Arrangements among the Elderly

There has been a rise in independent living arrangements (as defined above) among older people in many countries, particularly in the west (Klinenberg, 2012; Kramarow, 1995; Ruggles, 2007; United Nations, 2005). Similar trends are observed in Canada and the U.S.

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[1] The meaning and definition of "aging" and the "elderly" are increasingly open to question. Researchers studying the "elderly" or the "aged" recognize that using a particular age to define the elderly is arbitrary. We recognize that the "elderly" are a very heterogeneous group and reaching a particular age (be it 55, 60, 65 or 70) does not always imply declining economic or health status. Many statistics on the elderly refer to persons aged 65 and older, or persons aged 55 and older. In this study, we use age 55 in order to show more clearly potential differences that occur between age groups and to cover a wider age range at the "older" ages.

Over the past fifty years, there have been absolute and relative increases in the number of Canadian elderly in independent living arrangements, mainly for married or partnered couples to live with spouse or partner only (Gee, 2000; Priest, 1985; Wister, 1990). This is contrasted with declining proportions in co-residential living arrangements, including living with other family members or with non-relatives. Recent data from the 2011 National Household Survey (Statistics Canada, 2012a) show that among the population aged 65 and older, the majority (56.4 percent) lived as part of a couple and another 25 percent lived alone. In other words, over 80 percent of the population aged 65 and older were in independent living arrangements. The prevalence of living alone increases after age 50 for women and after age 70 for men, with a sharper increase for women (Statistics Canada, 2012a).

Living arrangement patterns for the U.S. population aged 65 and older are fairly similar. Data for 2012 show that about 59 percent lived with spouse or unmarried partner only and another 28.5 percent lived alone. Together, almost 88 percent of the population aged 65 and older were in independent living arrangements (Vespa et al, 2013: Table 3). The percent of older adults living alone was about 40 percent in 1990, but decreased to around 36 percent in 2000 and 2010 (U.S. Census Bureau, 2012: Table 72). As in Canada, living alone is higher among women, and increases with age, with sharper increases for women. For example, 47 percent of women aged 65 and older lived alone compared with 22 percent of men, in 2010 (U.S. Census Bureau, 2012: Table 72).

The Special Case of "Living Alone"

While living alone is not a new form of living arrangement, Klinenberg (2012) describes the increased trend of "going solo" as a new "social experiment" that is fundamentally at odds with much of human history. Using the term "singleton" to refer to a person who lives alone,

Klinenberg (2012) documents a global increase in singletons, driven by increased economic prosperity and social security, "cult of the individual", greater geographical mobility, greater job mobility, and several "revolutions", specifically, in gender relations (leading to improved economic and social status of women), communications, mass urbanization, and longevity.

The global rise in living alone occurs across the age range, but for this paper, we focus on "aging alone" (Klinenberg, 2012), or the increase in older people living alone. Increased longevity is the main demographic reason for the rise in elderly people living alone. As people live longer, the risk of other lifecourse events increases, such as divorce and widowhood, which changes living arrangements, including a change to living alone (Bess, 1999). As noted earlier, living alone is much more frequent among elderly women (Gaymu, 2003; Klinenberg, 2012; Statistics Canada, 2012a; Vespa et al., 2013) because of the gender gap in longevity and the common pattern of women marrying older men, which increases the risk of widowhood.

Conventional beliefs about elderly people living alone have some truth. Many are widows, and experience poverty, social isolation, poorer physical and mental health, and lower life satisfaction and quality of life (Bess, 1999; Gaymu et al., 2012; Gee, 2000; Klinenberg, 2012; Lee, 2005). Turcotte and Schellenberg (2007) report that poverty is highest among female seniors who live alone. However, despite the distinctive challenges of aging alone, many elderly who live alone express a strong preference for this over other living arrangements, including living with adult offspring and grandchildren, if this option were available, preferring "intimacy at a distance" (Klinenberg, 2012).[2] Many elderly who live alone treasure their independence and privacy, and would not willingly change their

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[2] Some persons who live alone may be in a stable relationship with a partner who also lives alone. These "living apart together" (LAT) couples are more common among young adults. For example, only about 2 percent of people over 60 in Canada are in a LAT relationship (Turcotte, 2013).

independent living arrangements, and especially fear losing their ability to reside independently (Gaymu et al., 2012; Klinenberg, 2012; Lee, 2005).

Living Arrangements of Older Immigrants

While statistics on living arrangements show an increased trend to independent living arrangements among the older population, several U.S. and Canadian studies show that immigrants, including elderly immigrants, are more likely to live in extended family living arrangements, and by implication, less likely to reside in independent living arrangements, including living alone (Glick, 2000; Glick and Van Hook, 2002; Kaida et al., 2009; Lee and Edmonston, forthcoming). The preference for extended living arrangements among immigrants has been explained by several factors, including economic factors (co-residence as an immigrant economic coping strategy) or cultural and acculturation factors (immigrants from some cultural backgrounds have stronger family values that encourage co-residence and less acculturated immigrants retain traditional customs including those about extended living arrangements).

Still, older immigrants may be exposed to similar demographic forces such as increased longevity, gender gap in longevity, age gap between spouses, divorce and widowhood, as well as changing social norms and values regarding individualism, privacy, and independence, although the influence of these factors may vary between immigrant and native-born elderly. Older immigrants, particularly those who are more acculturated, may prefer independent living arrangements, including living alone if not married or partnered.

RESEARCH QUESTIONS AND CONTRIBUTIONS

This paper addresses two research questions. First, are older immigrants less likely than Canadian- or U.S.-born elderly to live alone, once appropriate factors are considered? Second,

what are the main determinants of living alone among older immigrants in each country? Statistics and previous studies suggest that age and gender, and economic and acculturation factors will be particularly important. We examine similarities and differences in determinants of living alone across the two countries by comparing four groups by country and gender: Canada/female, Canada/male, U.S./female, and U.S./male.

This paper makes three contributions to existing research. The focus on living alone highlights this form of living arrangement among older immigrants. Much previous research on living arrangements of older immigrants had examined co-residence or extended living arrangements (see for example, Glick, 2000; Glick and van Hook, 2002; Kaida et al., 2009). Although we do not directly examine the implications of living alone for older immigrants' wellbeing, identifying the determinants of living alone among elderly immigrants furthers our understanding of the demographic, economic, acculturation, and other characteristics of elderly immigrants who live alone.

Second, this paper contributes to research on elderly immigrants in Canada and the U.S., a population which has not received much attention, as noted by Gelfand (1989) and Wilmoth (2001), compared to extensive research and discussion of the elderly in general. Aging immigrants are a growing part of the aging population in countries such as Canada and the U.S.; for example, 2006 Canadian census data show that more than one-quarter of the population aged 65 and older in Canada are foreign-born (Turcotte and Schellenberg, 2007). In the U.S., 12.7 percent of the population aged 55 and older are foreign-born (U.S. Census Bureau, 2013).

Third, this study is the first comparative analysis of living alone among older immigrants in Canada and the U.S., offering a useful comparison of two large immigrant-

receiving countries that have older immigrants from many different countries of origin. In the following section, we discuss why a comparative study can be especially productive in advancing understanding of living alone among older immigrants.

COMPARING CANADA AND THE U.S.

While there are distinctive challenges in cross-country research, including the need for comparable variables and sensitivity to historical and contextual differences, a comparative analysis can advance knowledge in many unique ways. A comparative analysis has the advantage of allowing researchers to conduct similar analyses using different data from the countries selected to identify similarities and differences in how various factors and characteristics affect the outcome being examined. If the influence of particular factors is similar, this increases confidence in the validity and reliability of the findings.

Comparing Canada and the U.S. for this analysis is not simply based on the fact that they are North American neighbors with a long joint history (mostly amicable), and that the two countries have been strong allies in modern times (again, with some exceptions).[3] Canada and the U.S. are far from "two peas in a pod" (Bloemraad, 2011), but besides being North American neighbors and close economic trading and foreign policy partners, there are other similarities and differences between Canada and the U.S. that make for a fruitful comparative study of living alone among elderly immigrants. There are also differences, for example, Canada's population and economy are much smaller than that of the U.S.: Canada's population is about 33.5 million in 2011 (Statistics Canada, 2012b) compared with 308.7 million in the U.S. in 2010 (Howden and Meyer, 2011). However, Canada and the U.S. share several

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[3] The most famous war between the U.S. and Canada is the War of 1812 when the U.S. and Great Britain were at war, and Canada was still a British colony. The U.S. launched several attacks against what was then known as Upper Canada. In more recent times, Canada remained neutral during the Vietnam War and gave refuge to American men who had been drafted during the Vietnam War years.

sociodemographic trends. We describe similarities as well as differences to show the value of a comparative study of living alone among older immigrants.

Role of Immigration

First, immigration has always been a major factor in both countries, historically and today. Canada and the U.S. are among the leading destinations for global migration streams in recent decades (Martin, 2013). Both countries have long histories of immigration and generally take pride in their immigrant heritage.[4] However, we should note differences in immigration policies and systems. Canada has a selective points-based immigration system whereby potential immigrants are screened based on such human capital characteristics as age, education, English and/or French language proficiency (Canada's two official languages), and adaptability whereas the U.S. immigration system is primarily based on family reunification.

While the U.S. continues to admit more immigrants than other major immigrant destination countries (Martin and Midgley, 2010), immigration has a larger influence on Canada's population. The percent foreign-born of Canada's national population stands at 24 percent compared with 13 percent for the U.S. (Martin and Midgley, 2010). Immigration has been the main source of Canada's population growth since 1993/1994 (Statistics Canada, 2012b). For the year ending June 30, 2012, net international migration accounted for two-thirds of Canada's population growth (Statistics Canada, 2012b). Population growth increasingly stems from the contribution of immigration because fertility levels are below replacement. In contrast, immigration accounts for a lower percent of U.S. population growth, at about one-third of U.S. population growth in recent decades (Martin and Midgley, 2010).

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[4] While each country celebrates its immigrant history and heritage, immigration has also been controversial in the past and today, indicated by political efforts to reform immigration policy in the U.S. and occasional intensification of debates over the benefits and costs of immigration (see for example, Lee, 2013; Martin and Midgley, 2006; Martin, 2013; Smith and Edmonston, 1997).

Population Aging

Second, population aging is another demographic trend shared by both countries. The Canadian population is aging, indicated by increased median age of the population from 26.2 in 1971 to 40.0 in 2011 (Statistics Canada, 2012b). Elderly immigrants are a growing segment of Canada's aging population, with more than one-quarter of the population aged 65 and older being foreign-born (Turcotte and Schellenberg, 2007).

Similar population aging trends are observed in the U.S. (Gist and Hetzel, 2004). The median age of the U.S. population has steadily increased, from 30.0 in 1980 to 37.2 in 2010 (U.S. Census Bureau, 2012: Table 7). The percent of the U.S. population aged 55 and older has also increased, from 20.8 percent in 1980 to 24.9 percent in 2010 (U.S. Census Bureau, 2012: Table 7). Of the population aged 55 and older, 12.7 percent are foreign-born (U.S. Census Bureau, 2013).

Aging-in-place of younger foreign-born cohorts and the immigration of older immigrants contribute to the growth of the elderly immigrant population in each country. While both the Canadian and U.S. populations are aging, and aging immigrants are part of this demographic trend, statistics cited above show that Canada's population is older and elderly immigrants are a larger proportion of its elderly population.

Racial and Ethnic Diversity

Third, closely related to the role of immigration is the expanded racial, ethnic, and cultural diversity of the Canadian and U.S. populations. Mainly because of immigration from Asia and other non-traditional (that is, non-European or North American) sources in recent decades, Canada's population has evolved from one dominated by the two founding peoples (British and French) and the indigenous (Aboriginal) population to the current situation where

over two hundred ethnic origins were reported, and thirteen different ethnic origins had one million or more responses (Statistics Canada, 2013).

In 2011, close to 20 percent (19.1 percent) of Canada's population identified as members of "visible minority" groups, that is, racial minority groups other than Aboriginal peoples.[5] The largest visible minority groups are South Asians, Chinese, and Blacks, accounting for over 61 percent of the visible minority population. But visible minority groups are still fairly small in numbers and as a percent of the Canadian population: for example, there were over 1.5 million South Asians, the largest visible minority group, accounting for just 4.8 percent of Canada's population, followed by 1.3 million Chinese (4 percent of Canada's population), and fewer than a million Blacks, or 2.9 percent of the total population (Statistics Canada, 2013).

The U.S. population has also been transformed by increased racial and ethnic diversity, also closely related to immigration. The main group, non-Hispanic White, has been slowly declining as a percent of the total population, to 63.7 percent in 2010, down from 69.1 percent in 2000. This means that other racial groups and Hispanics have been increasing in numbers and proportions, and together comprise about 36 percent of the total U.S. population in 2010 (Humes et al., 2011).

Asians were the fastest growing racial minority between 2000 and 2010, but account for just 5.6 percent of the population in 2010. The most notable change has been the growth of the Hispanic or Latino population to become the largest minority population in the U.S. since the

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[5] The Employment Equity Act of Canada defines as visible minorities "persons, other than Aboriginal persons, who are non-Caucasian in race or non-white in colour". The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, Korean, and Japanese (Statistics Canada, 2013).

1990s. Hispanics are now 16.3 percent of the U.S. population compared with 13.6 percent

Black and 5.6 percent Asian, the other main racial minority groups (Humes et al., 2011).

While both Canada and the U.S. have become more racial and ethnically diverse, there

are important differences, including the larger share of racial/ethnic minority populations in the

U.S. (36 percent), compared with 19 percent of visible minority groups in Canada, and the

large presence of Hispanics in the U.S.

DATA AND METHODS

We analyze data from two data sets. Data for Canada are from the Public Use Microdata File

(PUMF) on individuals in the 2006 Census of Canada, the most recent available census data

(Statistics Canada, 2011). These data are a 2.7 percent sample of the population enumerated in

the census. U.S. data are from the 2006 American Community Survey (ACS) PUMS (U.S.

Census Bureau, 2006). The ACS is a nation-wide continuous survey that samples about one in

thirty-eight households. It is a mandatory survey as it is considered part of the decennial census

(the ACS replaced the "long-form" census after the 2000 U.S. census). This is a cross-sectional

analysis and has the usual limitations of cross-sectional studies. However, since we do not

propose to analyze how the elderly transition into particular types of living arrangements, a

cross-sectional analysis is still appropriate for addressing our research questions.

For statistical analysis, we define the study sample as persons 55 years and older. Given

the outcome variable -- living alone -- we exclude persons who are married or living common-

law (the latter status is officially recognized in Canada and often treated as equivalent to being

married) or co-habiting. We include men and women, who are never married, separated,

divorced, or widowed. We exclude older persons living in group quarters. Recent statistics

show that for the population aged 65 and older, over 92 percent in Canada live in private

households (Statistics Canada, 2012c) and the comparable figure is 95 percent in the U.S. (U.S. Census Bureau, 2011: Table 35). For our study population of persons aged 55 and older, the percentages would likely be higher.

We identify Canadian-born or U.S.-born elderly and immigrants from responses to the questions on citizenship at birth and place of birth. Persons who are Canadian or U.S. citizens at birth are considered native-born while persons who are not Canadian or U.S. citizens at birth are considered immigrants.[6] Variables included in the analysis are as directly comparable as possible across the two data sets. We note where it is not possible to develop directly comparable categories for some variables.

Outcome Variable

The outcome variable, living alone, is coded as a binary variable (1=live alone; 0=don't live alone) based on responses to questions on household type, family structure, and individual family status.

Explanatory Variables and Expected Effects

We include explanatory variables that previous research suggests influence living arrangements of older immigrants. Expected effects are based on previous research and published statistics.

Demographic Variables:

Age is coded in seven age groups, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85 years or older for descriptive analysis.[7]   Age is recoded into a continuous variable in the multivariate analyses.[8]   Statistics on living alone from Statistics Canada (2012c) and the U.S. Census Bureau (2011) suggest that living alone increases with age but these statistics do not take into account

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[6] This avoids including persons born abroad to Canadian or U.S. citizens as immigrants (based on foreign place of birth) as these persons are not considered immigrants in Canada or the U.S., respectively.
[7] We use 5-year age groups because 2006 Canadian census public-use microdata are limited to five-year age groups.
[8] We use the mid-point of each 5-year age category to assign age values for the Canadian sample (for example, persons aged 55-59 were assigned an age of 57.5).

marital status, health, and other factors that may make it more difficult for older immigrants to live alone. It is possible that living alone increases with age but it is equally likely that once additional factors are considered, age may have negative or only modest effects on living alone among older immigrants.

Gender is a binary variable (0=female; 1=male). Living alone is expected to be more likely among women because of women's longer longevity. However, this may not be the case once other factors are considered.

Marital status includes four non-married categories: divorced, separated, widowed, and never-married. Living alone may be more likely among widowed immigrants.

Economic Variables:

The effects of economic variables are expected to be positive, as living alone requires adequate income to pay for a housing unit that is habited by only one person.

Education is coded in five categories: less than high school, high school graduate, some post-high school education but less than a Bachelor's degree, Bachelor's degree, and post-Bachelor's degree. Education is expected to have positive effects on living alone.

Individual income is coded in six categories: less than $10,000; $10,000-$19,999; $20,000-$39,999; $40,000-$59,999; $60,000-$99,999; $100,000 and over for descriptive analysis.[9] In the multivariate analyses, individual income is a continuous variable. Living alone is expected to increase with income.

Government retirement income is a binary variable (0 = received less than $100 in government retirement income during the past year or 1 = received $100 or more in government retirement income during the past year). In Canada, government retirement income refers to benefits from

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[9] Income and other monetary variables are measured using Canadian dollars in the Canadian sample and U.S. dollars in the U.S. sample. In 2006, the Bank of Canada exchange rate was around US$1 equals CAD1.14.

the Canada or Quebec Pension Plan. In the U.S., government retirement income refers to payments and benefits from the Social Security Administration. Having government retirement income increases the likelihood of living alone.

Guaranteed retirement income is a binary variable (0 = received less than $100 in retirement income from a private or personal pension plan during the past year or 1 = received $100 or more in retirement income from a private or personal pension plan during the past year). Guaranteed retirement income refers to regular income received from being a member of an employer's pension plan, payments from individual annuities, private pensions paid to widows or widowers, pensions of retired civil servants, and other annuities paid to individuals by a private insurance company. Having guaranteed retirement income is expected to increase the chances of living alone.

Homeownership is a binary variable (0 = does not own home or 1 = own home). Homeownership's effect is expected to be positive on living alone because owning a home implies having sufficient economic resources to own a home. In addition, homeownership facilitates living alone, removing the need to look for alternative housing in the event of marital dissolution or widowhood.

Cultural and Acculturation Variables:[10]

Ethnic origin is coded using fifteen groups. These are "American" (in the U.S. sample) or "Canadian" (in the Canadian sample); British; French; Other European; Arab or Middle Eastern; South Asian /Asian Indian; Chinese; Filipino; Korean; Vietnamese; Other Asian; Latin American/Latino/Hispanic; African, Black, or Caribbean; Other single ethnic origins (including

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[10] Culture and acculturation are closely related but distinct concepts, and ethnic origin, language background, religion, and other characteristics are usually used to indicate cultural background. For immigrants, acculturation is usually indicated by duration of residence in the host country and proficiency in host country language (see for example, Glick, 2000; Gurak and Kritz, 2010; Lee and Edmonston, 2011).

persons reporting Aboriginal only in the Canadian sample and Native American or Alaskan

Native or Native Hawaiian/Pacific Islander only in the U.S. sample); and Multiple ethnic origins.

Persons reporting ethnic origins that are culturally closer to mainstream American or Canadian

culture (that is, American, Canadian, and various European groups) are more likely to live alone.

Knowledge of official languages (in Canada) or proficiency in English (in the U.S.) is coded

using four categories. Besides being an indirect indicator of acculturation, language knowledge

or proficiency implies an ability to communicate and navigate social and other situations, and

understanding of broader societal norms.

The four categories range from excellent to poor competence in Canada's two official

languages (English and French) or in English (for the U.S. sample), although the specific

definitions differ for Canada and the U.S. For the Canadian sample, the four categories are (1)

English or French mother tongue, and English or French home language; (2) other mother

tongue, and English or French home language; (3) other mother tongue, and other home

language, knows English or French; and (4) other mother tongue, other home language, and does

not know English or French. For the U.S. sample, the four categories are: (1) only speaks

English; (2) speaks English very well; (3) speaks English well or not well; and (4) does not speak

English. Cultural closeness to the host country and/or acculturation decreases from category 1 to

4 for both the Canadian and U.S. samples, and living alone is expected to decrease from the first

to the fourth category of the language variable.

Duration of residence measures how many years immigrants have resided in Canada or the U.S.

It is coded in five categories for descriptive analysis, from 0-9, 10-19, 20-29, 30-39, and 40 years

or more. In the multivariate analyses, duration of residence is a continuous variable. Duration of

residence is expected to have positive effects on living alone as increased duration implies

greater acculturation.

Other Control Variables

Place of residence indicates metropolitan and non-metropolitan residence, and residence in

several specific Canadian and U.S. cities. Metropolitan categories for this variable include three

Canadian and five U.S. cities with the largest number of older immigrants.[11] The codes for place

of residence are (1) Montreal (Canada) or Chicago (U.S.); (2) Toronto (Canada) or Los Angeles

(U.S.); (3) Vancouver (Canada) or Miami (U.S.); (4) New York City; (5) San Francisco; (6)

other metropolitan areas; and (7) non-metropolitan areas. Living alone is expected to be higher

in non-metropolitan areas because of lower cost of housing which facilitates independent living

arrangements, including living alone.

Methods of Analysis

We begin with descriptive analyses to describe and compare the study samples. For

multivariate analyses, we use Stata 12 statistical software (Stata, 2011) to estimate several

logistic regression models because the outcome variable is coded as a binary variable. First, we

estimate a logistic regression model of living alone (Model I), separately for Canada and the

U.S., for all non-married elderly, aged 55 and older. Each equation includes dummy variables

for nativity and gender, and other explanatory variables described above (except for duration of

residence because it is collinear with nativity). Second, we estimate a logistic regression of

living alone for all non-married elderly, aged 55 and older (Model II), for four groups: females in

Canada, males in Canada, females in U.S., and males in U.S. Each equation includes a dummy

variable for nativity, and explanatory variables described above (except for duration of residence

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[11] We include only three Canadian cities because immigrants in Canada are highly concentrated in them (63.4 percent of Canada's immigrants reside in these three cities – Statistics Canada, 2013).

because it is collinear with nativity, and gender). Third, limiting analysis to *older immigrants only*, we estimate a logistic regression model of living alone (Model III) for four groups: females in Canada, males in Canada, females in U.S., and males in U.S., to identify and compare determinants of living alone among older immigrants. Model III includes duration of residence.

For interpreting the logistic regression results, we calculate predicted probabilities for each explanatory variable using the *margins* command in Stata 12 (Stata, 2011). The predicted probabilities provide a useful interpretation of the net effect of each categorical variable on living alone, evaluated by holding constant the effects of all other variables in the model (Long and Freese, 2006). Multiplying predicted probabilities by 100 converts them into percents or proportions, which facilitates presentation and discussion of results.

Limitations of the Study

We note several limitations of the study. First, this is a cross-sectional analysis, and findings refer only to the period when the data were collected in 2006. We do not know if the living arrangement recorded at time of data collection is temporary or permanent, and the findings cannot speak to trends in factors related to living alone.

Second, the outcome, living alone, poses some conceptual challenges. Living alone is one type of living arrangement, and living arrangements are inherently dynamic and may be recursive. This means that an individual can transit through different types of living arrangements over her/his life (for example, living at home with parents → living alone as a young adult → living with spouse upon marriage → living with spouse and children → living alone upon divorce → remarriage, living with new spouse → widowed, living alone). In this example, living alone occurs at different stages over the lifecourse, and has different

determinants and implications. The study of living arrangements has therefore to be particularly sensitive to age, gender, and lifecourse influences, including marital status.

Third, there are measurement challenges for studying living alone as a form of living arrangement. The data examined in this study do not tell us whether the person living alone is in a relationship with another person (the "living apart together" couples noted earlier). It is likely that the determinants and implications of living alone for such individuals would differ in important ways from others who live alone and are not in a relationship.

Finally, while the census and ACS data used are appropriate for identifying and comparing sociodemographic, economic, and acculturation factors on living alone among older immigrants, there is no information on other factors that influence older immigrants' living arrangements, including health status,[12] availability of family or friends to share housing, or community characteristics that either facilitate or discourage living alone (for example, availability and affordability of housing units for older singletons).

DESCRIPTIVE STATISTICS

- Table 1 About Here -

Selected characteristics of the Canadian and U.S study samples are shown in Table 1. Non-married immigrant elderly in both Canada and the U.S. are much less likely to live alone than native-born elderly. In Canada, 54.8 percent of non-married older immigrants live alone, compared with 70.7 percent of Canadian-born non-married elderly (a difference of 15.9 percent). In the U.S., 51.7 percent of non-married older immigrants live alone, compared with 73.2 percent of U.S.-born non-married elderly (a difference of 21.5 percent). The gap is larger in the U.S.

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[12] The ACS includes a question on disability but there is no comparable information in the Canadian census.

Demographic Characteristics

Gender: There are more females in both samples, about 69 percent. There are also more women in the immigrant samples, at around 73-74 percent in both the Canadian and U.S. samples.

Age: The distribution across age categories is as expected, with higher percents in the younger age categories. The U.S. immigrant sample has higher percents in the younger age categories.

Marital Status: Marital status refers to non-married categories only. Being widowed is the most common marital status for both Canadian and U.S. samples, with a higher percent widowed among immigrants in Canada. The percent divorced is higher among the native-born in both samples.

Ethnic Origin:[13] Immigrants are distributed over a wider range of ethnic origins compared with the native-born. There are two striking differences between the Canadian and U.S. immigrant samples. First, older immigrants in Canada have higher percents reporting European origins (72.8 percent)[14] compared with 33.8 percent[15] of older immigrants in the U.S. Second, almost one-third (32.1 percent) of older immigrants in the U.S. report Latin American/Hispanic/Latino origin while no single ethnic group dominates the immigrant sample in Canada (the largest three are British at 13.6 percent, Chinese at 8.7 percent, and South Asian at 6.2 percent).

Economic Characteristics

Education: On average, older immigrants in Canada have more years of schooling compared to Canadian-born elderly (a mean of 12.1 years versus 11.5 years) whereas in the U.S., older immigrants have fewer years of schooling, with a mean of 10.3 years versus 12.3 years for the

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[13] We describe ethnic origin as a cultural or acculturation variable in the preceding section on data and methods, and it will be interpreted as such in the multivariate analysis. For describing the samples, we treat ethnic origin as a demographic characteristic.

[14] This percent includes the 25 percent reporting multiple origins. Studies of ethnic origin in Canada show that persons reporting multiple origins are mainly reporting "Canadian" in combination with other European origins, and persons reporting "Canadian" used to report European origins, particularly French or British – see for example, Boyd and Norris, 2001; Goldmann, 1998; Lee and Edmonston, 2009/2010).

[15] This includes the 5.9 percent reporting multiple origins in the U.S. sample of immigrants.

U.S.-born. The distribution across levels of educational attainment of Canadian-born and immigrant elderly is generally quite similar but higher percents of immigrants in the U.S. sample are in the lower educational categories.

Income: In both samples, older immigrants have lower mean incomes, and the percent of immigrants in the two lowest income categories exceeds that of the native-born in both countries.

Homeownership: Homeownership is higher for the U.S. sample (70 percent are homeowners compared with 62 percent for the Canadian sample). However, immigrants in Canada are more likely to own their homes (67 percent, compared with 60 percent for Canadian-born elderly), while immigrants in the U.S. sample are less likely to be homeowners (62 percent, compared with 71 percent of U.S.-born elderly).

Other Characteristics

Metropolitan Residence: Notably higher percents of elderly immigrants in both samples reside in metropolitan areas. The metropolitan concentration of older immigrants in the U.S. is higher, at 94 percent, compared with 86 percent in Canada. U.S.-born elderly are also more likely to reside in metropolitan areas (73 percent) compared with Canadian-born elderly (at 59 percent).

Immigrant-Specific Characteristics

There are two immigrant-specific characteristics in Table 1: duration of residence in the host country and host country language proficiency.

Duration of Residence: On average, older immigrants in Canada have resided in Canada for 37.7 years compared with 34.8 years for older immigrants in the U.S. Higher percents of elderly immigrants in the Canadian sample have resided in Canada for forty or more years (43.8 percent) compared with 36.4 percent of immigrants in the U.S. sample. More immigrants in the U.S.

sample are recent arrivals: 10.7 percent have been in the U.S. for less than 10 years, compared with 5.5 percent of immigrants in the Canadian sample.

Language Proficiency: As noted earlier in the section describing variables and in Table 1, categories of the language proficiency variable are not directly comparable between the two samples. However, there is a similar pattern for interpreting its effects, that is, acculturation (indirectly indicated by language proficiency/knowledge) decreases from category 1 to category 4. About two-thirds of the Canadian sample are in the first two categories and would be considered highly acculturated but 14.6 percent are in the fourth category (considered the least acculturated). 44.7 percent of the U.S. sample are in the first two categories while 19 percent are in the fourth category.

LOGISTIC REGRESSION RESULTS

Model I: We begin with results from Model I, which was estimated separately for Canada and the U.S. Table 2 compares observed (or descriptive) and adjusted results by nativity.[16]

- Table 2 about Here -

The observed large gaps in living alone between native- and foreign-born elderly are substantially reduced once other factors in the equation are taken into account. Specifically, the observed difference of 15.9 percent between Canadian-born and immigrant elderly living alone is reduced to 3.2 percent, and the observed difference of 21.5 percent between U.S.-born and immigrant elderly is reduced to less than 1 percent (0.8 percent). This shows that living alone is not uncommon among older immigrants once all other factors Model I are considered.

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[16] Given the large amount of statistical results, we do not show predicted probabilities for all the explanatory variables included in Models I and II. The complete tables of predicted probabilities are available upon request.

Model II: Model II was estimated for four groups – Canada/female, Canada/male, U.S./female, and U.S./male. Results comparing gender/nativity groups for Canada and the U.S. are shown in Table 3.

- Table 3 About Here -

In every case, fairly large observed differences in living alone between native- and foreign-born females and males in Canada and the U.S. are substantially reduced. Indeed, there is little difference in the percent living alone between U.S.-born and foreign-born females (the difference between observed and adjusted percents is 0.3 percent), once all other factors in Model II are considered. Therefore, once all other factors in Model II are considered, gender differences in living alone among older immigrants in both countries are modest or negligible.

Model III: Older Immigrants Only

Results from estimating Model III for Canada/female, Canada/male, U.S./female, and U.S./male are shown in Table 4.[17] Predicted probabilities of living alone for categorical explanatory variables are shown in Table 4 and results for three continuous variables – age, individual income, and duration of residence – are shown in Figures 1 to 3 (in the figures, predicted probabilities have been converted to proportions to facilitate presentation and description). Overall results show that older male immigrants in both Canada and the U.S. are more likely to live alone, comparing across different categories or values of explanatory variables.

Demographic Characteristics:

Age: The effects of age are shown in Figure 1. Living alone increases with age for older immigrants in Canada, with particularly sharper increases for females while age effects for males

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[17] Table 4 shows predicted probabilities for categorical variables from estimating Model III for the four gender/country groups. There is a large amount of statistical results, and we do not include the four tables showing logistic regression coefficients from the four logistic regressions. These are available upon request.

are modest. However, the effect of age is negative in the U.S., and is more pronounced for females.

- Figure 1 About Here -

Marital Status: The effects of marital status are shown in Panel A, Table 4.

- Table 4 About Here –

A comparison by each category of marital status across the four groups shows that (1) more males live alone in each marital status in both samples, and (2) the proportions living alone are higher in Canada for all but never-married males, where the proportion living alone is similar in both Canada and the U.S.

Differences by marital status among females in Canada are not large, with around 54-57 percent living alone across different marital status categories. Among males in Canada, widowed males have the lowest proportion living alone while separated males have the highest proportion. Differences by marital status are larger than those for females, but are still modest.

Among female immigrants in the U.S., those who are separated are least likely to live alone while divorced female immigrants are most likely to live alone. Among males, widowed males have the lowest proportion living alone, while divorced and never-married males have the highest proportions living alone. In both samples, divorced older immigrants have higher proportions living alone.

Economic Factors:

Individual income: Individual income effects are shown in Figure 2.

- Figure 2 about Here -

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As expected, the proportions living alone increase with income, with the sharpest increase observed for females in the U.S. The effects of other economic factors are shown in Panel B, Table 4, and are all in the expected positive direction.

Government and private retirement income: Older immigrants who have government or private retirement income are more likely to live alone. These effects hold across all groups, but the effects are larger for males in both Canada and the U.S.

Homeownership: Older immigrants who are homeowners are more likely to live alone, a pattern observed for all four gender/country groups. Older male immigrants in Canada who are homeowners have the highest proportion living alone.

Educational Attainment: The proportions living alone increase for all four groups as educational attainment increases. The proportions living alone are higher among males in both countries at each level of educational attainment.

Acculturation Factors: The effects of ethnic origin and language proficiency are shown in Panel C, Table 4.

Ethnic Origin: Ethnic group differences in living alone generally support expectations: older immigrants of European backgrounds are culturally closer to "mainstream" Canadian and U.S. culture, and higher proportions of these groups live alone. In contrast, lower proportions of older immigrants reporting Asian, Latin American, and other non-European origins live alone. Older female immigrants of all ethnic origins in both Canada and the U.S. are less likely to live alone than male co-ethnics (there are two exceptions to this pattern: Korean and Latin American female immigrants in Canada have higher proportions who live alone compared to co-ethnic males).

Ethnic groups with the highest and lowest proportion living alone for each of the four groups are as follows: Canada/females: Korean (69 percent), Filipino (33 percent); Canada/males: Canadian (81 percent), Latin American (38 percent); U.S./females: French (67 percent), Asian Indian (33 percent); U.S./males: American (88 percent), Filipino (49 percent).

Language Proficiency: This variable indicates high to low linguistic acculturation (from Category 1 to Category 4). The proportions living alone decrease from Category 1 to Category 4 for both samples and for both genders. For example, 60 percent of older female immigrants in Canada in Category 1 live alone, compared with 43 percent of female immigrants coded Category 4. The difference by linguistic acculturation is larger among males: 72 percent of male immigrants in Canada classified in Category 1 live alone versus 53 percent of males classified in Category 4.

Duration of Residence: Acculturation is also indicated by duration of residence, increasing as years of residence increase. As expected, living alone among older immigrants increases with duration of residence, shown in Figure 3.

- Figure 3 About Here -

The increase is sharper among female immigrants in both Canada and the U.S., and immigrants in Canada (both females and males) have higher proportions living alone compared to their U.S. peers at all values of duration of residence.

Other Controls:

Place of Residence: Older immigrants who live in non-metropolitan areas are more likely to live alone, a pattern that is similar for all four sub-groups. Lower proportions of older immigrants in Canada who reside in one of Canada's three largest immigrant destination cities (Montreal, Toronto, and Vancouver) live alone, compared to immigrants who live in other metropolitan and

non-metropolitan areas. For older immigrants in the U.S., a similar pattern holds, except for those who reside in Miami where the proportion living alone (69 percent) is quite close to the percent living alone in non-metropolitan areas.

DISCUSSION AND CONCLUSION

We return to our research questions in this last section. First, we ask whether non-married older immigrants are less likely than Canadian- or U.S.-born non-married elderly to live alone. Descriptive results show that older immigrants in Canada and the U.S. are substantially less likely to live alone than native-born elderly. The gap is larger between native-born and immigrant elderly in the U.S., at 21.5 percent, compared with 15.9 percent in Canada. This finding is consistent with other research showing lower rates of independent living arrangements among immigrants and older immigrants, and by implication, higher rates of extended living arrangements (see for example, Glick, 2000; Gurak and Kritz, 2010; Wilmoth, 2001).

However, once appropriate factors are taken into account, the gaps are substantially reduced, to just 3.2 percent in Canada and less than 1 percent in the U.S. Differences by gender and nativity are also substantially reduced or become negligible once various factors are considered. These findings are consistent with previous research showing that independent living arrangements (including living alone among those who are not married) are not uncommon among older immigrants (Lee and Edmonston, forthcoming), suggesting that differences in living arrangements between older immigrants and native-born elderly are largely due to differences in demographic, economic, and acculturation characteristics between the older native-born and immigrant populations.

Our second research question addresses the determinants of living alone among non-married older immigrants in Canada and the U.S. The main findings show higher levels of living

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alone for older male immigrants in both Canada and the U.S., across different characteristics, including age, marital status, income, education, and duration of residence. With some exceptions, the proportion living alone is higher among immigrants in Canada across different characteristics.

Determinants of living alone are generally similar for older immigrants in Canada and the U.S., suggesting that living alone among older immigrants is mainly explained by a combination of economic and acculturation factors, after taking demographic variables into account. More acculturated older immigrants, and immigrants with more economic resources, are more likely to live alone, findings that are consistent with previous studies on extended living arrangements among older immigrants (the effects on living alone are opposite to those for extended living arrangements where less acculturated older immigrants with fewer economic resources are more likely to co-reside -- see for example, Blank and Torrecilha, 1998; Kaida et al., 2009).

We highlight several findings for further discussion, focusing on findings that seem to contradict widespread beliefs about older people living alone. We begin with the role of gender. Aggregate statistics on older people living alone contribute to widespread beliefs and images that older women are more likely to live alone. It is of course correct that higher proportions of older women live alone (for example, 47 percent of women aged 65 and older lived alone compared with 22 percent of men, in 2010 -- U.S. Census Bureau, 2012: Table 72), but when appropriate demographic, economic, and acculturation factors are considered, this study of older immigrants shows that *male* older immigrants are more likely to live alone. Therefore, being male is a stronger predictor of living alone among older immigrants, once additional appropriate factors are considered.

A second finding that is related to the above finding on gender is another widespread image of elderly people who live alone, that of elderly widows living alone. Again, this is not entirely incorrect, given women's longer longevity and the common age gap between spouses. However, once appropriate factors are taken into account, older immigrants who are widowed are not the most likely group to live alone, compared to other marital status groups. Divorced and separated older immigrants are more likely to live alone than the widowed, and in the U.S., older male immigrants who are never-married are as likely as divorced males to live alone. Marital disruptions due to divorce is therefore a better predictor of living alone among older immigrants than widowhood.

Third, the different effects of age on living alone between older immigrants Canada and the U.S. warrant further discussion. After controlling for all other variables in the logistic regression model, age effects are positive in Canada but negative in the U.S. Age effects are relatively modest for males but more pronounced for females, particularly female immigrants in Canada. These results raise interesting questions, including the role of unmeasured factors.

In an earlier section, we noted several limitations of this study, including data limitations. The Canadian census and ACS data do not contain information on availability of family or friends with whom non-married older immigrants can co-reside. There is no information on community services such as home care services, senior community centers, transport services, greater availability of smaller housing units (for example, one or two-bedroom apartments), and other factors that may make it easier for non-married older immigrants to continue to live alone at older ages. While the ACS has a question on disability, there is no comparable information in the Canadian census. Besides additional research into the potential influence of unmeasured

factors, we cannot dismiss the possibility that age has different effects for older immigrants in Canada and the U.S., and additional research to look into this possibility is also needed.

We began our analysis by making no assumptions about whether living alone is the "best" living arrangement for non-married older immigrants. The increased social trend to elderly residential independence suggests that most elderly prefer independent living arrangements (Klinenberg, 2012), but we recognize that for some older immigrants, co-residence may actually be preferable and more advantageous, and lowers the risk of social isolation. Some studies (see for example, Gee, 2000) report that elderly immigrants in co-residential living arrangements reported being happier and more satisfied.

However, as we reflect on our findings, a picture emerged suggesting that living alone is associated with characteristics that can only be described as advantageous. Older immigrants who live alone have higher income and education, and are more acculturated. These characteristics may be related to other dimensions of wellbeing, such as more extensive social ties and support because of being more acculturated, and better health, given the well-known socioeconomic status-health gradient (Adler et al., 1994; Smith, 2007). Still, we cannot conclude that living alone is the optimal living arrangement for all non-married older immigrants, as we did not have data to directly investigate subjective dimensions and consequences of living alone.

This comparative study of living alone among non-married older immigrants has yielded several findings that are consistent with previous research on living arrangements among older immigrants in Canada and the U.S. It has also produced findings that offer new perspectives on conventional beliefs and images about older people living alone. That the effects of many characteristics such as economic and acculturation factors are similar for both Canadian and U.S. samples strengthens our confidence in the role of such factors play in determining living

arrangements of older immigrants. Differences in the percentages living alone between non-

married older immigrants and native-born elderly in Canada and the U.S. are relatively modest,

once demographic, economic, and acculturation factors are taken into account.

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Table 1. Descriptive Statistics for Non-Married Elderly, Canada and the U.S. (in percents)

		Canada			U.S.	
	All	Canadian-born	Immigrants	All	U.S.-born	Immigrants
Live Alone	66.5	70.7	54.8	70.8	73.2	51.7
Demographic Characteristics						
Gender:	100.0	100.0	100.0	100.0	100.0	100.0
Female	69.1	67.8	72.6	68.9	68.2	74.2
Male	30.9	32.2	27.4	31.1	31.8	25.8
Age Groups:	100.0	100.0	100.0	100.0	100.0	100.0
55-59 years old	20.5	21.6	17.4	25.4	25.2	26.9
60-64	15.9	16.5	14.3	19.6	19.6	20.1
65-69	13.4	13.1	14.4	15.5	15.4	16.6
70-74	13.7	13.5	14.1	13	13	13.1
75-79	14.2	13.9	15.1	11.1	11.2	10.1
80-84	12.2	11.4	14.3	8.4	8.5	7.4
85 years old and older	10.1	10.0	10.5	7.0	7.2	5.9
Marital Status:	100.0	100.0	100.0	100.0	100.0	100.0
Divorced	25.5	26.8	22.0	32.2	32.9	26.4
Separated	7.3	7.1	8.1	4.2	3.7	8.1
Widowed	50.0	47.8	56.3	49.2	49.1	50.5
Never-married	17.1	18.4	13.6	14.4	14.3	15.0
Ethnic Origin:[a]	100.0	100.0	100.0	100.0	100.0	100.0
Single Origin						
Canadian/American[b]	18.5	24.9	0.6	7.2	8.1	0.2
British	14.0	14.1	13.6	7.4	7.8	3.8
French	6.5	8.4	1.3	0.9	0.9	0.8
Other European	15.3	9.2	32.2	26.2	26.6	23.1
Arab/Middle Eastern	0.7	0.1	2.5	0.5	0.2	3.1
South Asian/Asian Indian	1.7	0.0	6.2	0.3	0.0	2.2
Chinese	2.4	0.1	8.7	0.6	0.1	4.5
Filipino	0.6	0.0	2.2	0.6	0.1	4.6
Korean	0.1	0.0	0.4	0.3	0.0	2.2
Vietnamese	0.2	0.0	0.7	0.2	0.0	2.1
Other Asian	0.3	0.2	0.5	0.6	0.3	2.9
Latin American/Latino/Hispanic	0.3	0.0	1.0	6.6	3.4	32.1
African/Black/Caribbean	1.4	0.1	4.9	11.4	12.0	7.0
Other Single Origin[c]	1.5	2.0	0.2	13.3	14.3	5.6
Multiple Origins	36.7	40.8	25.1	24.0	26.3	5.9

Economic Characteristics						
Education:	100.0	100.0	100.0	100.0	100.0	100.0
Less than High School	40.5	40.9	39.3	27.2	25.2	43.7
High School Graduate	22.4	22.7	21.5	33.1	34.2	23.8
Post-High School	26.6	26.4	27.1	21.6	22.4	15.0
Bachelor's Degree	7.5	7.4	7.9	10.3	10.3	10.4
Post-Bachelor's	3.1	2.7	4.2	7.8	7.9	7.1
Mean Years of Education	11.7	11.5	12.1	12.1	12.3	10.3
Individual Income:	100.0	100.0	100.0	100.0	100.0	100.0
Below $10,000	8.5	7.8	10.3	26.9	24.7	44.4
$10-19,999	37.5	36.5	40.0	29.6	30.2	24.8
$20-39,999	32.5	33.3	30.7	24.9	25.8	17.9
$40-59,999	12.4	13.0	11.0	9.7	10.1	6.4
$60-99,999	6.3	6.5	6.0	5.9	6.2	4.1
$100,000 and over	2.8	2.8	2.9	3.1	3.2	2.4
Mean Individual Income ($)	31,318	31,738	30,143	26,832	27,594	20,755
Homeownership:	100.0	100.0	100.0	100.0	100.0	100.0
Yes	61.5	59.6	66.7	70.2	71.3	61.7
No	38.5	40.4	33.3	29.8	28.7	38.3
Acculturation Characteristics (foreign-born only)						
Duration of Residence in Canada or U.S.:			100.0			100.0
0-9 years			5.5			10.7
10-19			12.6			14.7
20-29			14.4			18.0
30-39			23.8			20.3
40 and more years			43.8			36.4
Mean Years of Duration of Residence			37.7			34.8
Language Proficiency:[d]			100.0			100.0
(1)			37.6			25.2
(2)			28.6			19.5
(3)			19.1			36.4
(4)			14.6			18.9
Other Characteristics						
Metropolitan Residence:	100.0	100.0	100.0	100.0	100.0	100.0
Yes	65.8	58.5	86.4	75.4	73.1	93.8
No	34.2	41.5	13.6	24.6	26.9	6.2
Sample Size (Number of cases)						
Unweighted	67,948	50,054	17,894	300,573	273,185	27,573
Weighted	2,514,076	1,851,998	662,078	27,821,402	24,721,329	3,100,073

[a] For Canada, based on responses to the ethnic origin question. For the U.S., based on responses to the ancestry question. Two responses are allowed in the U.S. questionnaire, while multiple responses are allowed in the Canadian questionnaire.

[b] "Canadian" ethnic origin for Canada, "American" ancestry for the U.S. The latter is recorded if "American" is the only response.

[c] Includes persons reporting single Aboriginal origin in Canada, and single Native American or Native Alaskan or Native Hawaiian/Other Pacific Islander origin in the U.S.

[d] The categories are not directly comparable for the Canadian and U.S. samples. For the Canadian sample, (1) English or French mother tongue and home language; (2) other mother tongue, English or French home language; (3) other mother tongue and home language, knows English or French; (4) other mother tongue and home language, does not know English or French. For the U.S. sample, (1) speaks English only; (2) speaks English very well; (3) speaks English well or not well; (4) does not speak English.

Table 2. Model I: Observed and Predicted (Adjusted) Percents Living Alone,
By Nativity, Non-married Elderly, Canada and U.S.[a]

		Observed		Adjusted
Canada				
Native-born		70.7		68.1
Foreign-born		54.8		64.9
Difference		15.9		3.2
U.S.				
Native-born		73.2		71.9
Foreign-born		51.7		71.1
Difference		21.5		0.8

[a] Model I was estimated separately for the Canadian and U.S.
samples of all non-married elderly. It includes a dummy variable for
nativity. Adjusted or predicted percents control for age, marital
status, individual income, government pension, private retirement
income, homeownership, education, ethnic origin, language
proficiency, and place of residence. Duration of residence for
immigrants is not included in Model I because it is collinear with
nativity. Predicted probabilities have been multiplied by 100 to show
the predicted percent living alone.

Table 3. Model II: Observed and Predicted (Adjusted) Percents Living Alone, Gender and Nativity Comparisons, Canada and U.S.[a]

		Observed		Adjusted	
Canada					
Females					
Native-born		70.7		67.2	
Foreign-born		52.4		63.5	
Difference		18.3		3.7	
Males					
Native-born		70.6		70.1	
Foreign-born		61.0		67.4	
Difference		9.6		2.7	
U.S.					
Females					
Native-born		70.6		69.0	
Foreign-born		47.3		68.7	
Difference		23.3		0.3	
Males					
Native-born		78.8		78.5	
Foreign-born		64.1		77.0	
Difference		14.7		1.4	

[a] Model II was estimated for all non-married elderly, for each of these four groups: Canada/female, Canada/male, U.S./female, and U.S./male. It includes a dummy variable for nativity, and all the other explanatory variables included in Model I (see Table 2 note).

Table 4. Model III: Predicted Probabilities of Living Alone for Categorical Explanatory Variables, Non-married Older Immigrants, Canada and U.S.[a]

Variable		Canada		U.S.	
Category		Females	Males	Females	Males
A. Demographic Characteristics					
Marital Status:					
Divorced		0.5662	0.6824	0.4957	0.6773
Separated		0.5373	0.7047	0.3972	0.6267
Never-married		0.5496	0.6660	0.4791	0.6690
Widowed		0.5447	0.6460	0.4357	0.5256
B. Economic Factors					
Government Pension Income:					
No		0.5112	0.6361	0.3993	0.5861
Yes		0.5698	0.6872	0.5068	0.6718
Retirement Pension Income:					
No		0.5282	0.6433	0.4453	0.6231
Yes		0.5784	0.7015	0.4893	0.6281
Homeownership:					
No		0.4985	0.6122	0.4254	0.5718
Yes		0.6014	0.7371	0.4913	0.6581
Highest Educational Attainment:					
Less than high school		0.5013	0.5812	0.4171	0.5904
High School		0.5462	0.6502	0.4358	0.6025
Post-High School (not Bachelor's)		0.6054	0.7169	0.5132	0.6606
Bachelor's Degree		0.6082	0.7229	0.5060	0.6732
Post-Bachelor's Degree		0.6792	0.7819	0.5569	0.6997
C. Acculturation Factors					
Ethnic Origin:					
Canadian/American		0.5820	0.8103	0.4989	0.8750
British		0.5801	0.6767	0.5944	0.7517
French		0.6303	0.7995	0.6677	0.8484
Other European		0.6347	0.7448	0.6177	0.7529
Arab/Middle Eastern		0.5328	0.7397	0.4855	0.6456
South Asian		0.3845	0.5316	0.3301	0.5946
Chinese		0.5405	0.6503	0.5232	0.6442
Filipino		0.3272	0.4595	0.3387	0.4851
Korean		0.6881	0.5235	0.5988	0.7636
Vietnamese		0.4147	0.5550	0.4448	0.5352
Other Asian		0.5769	0.7126	0.5035	0.5407
Latin American		0.4885	0.3765	0.4274	0.6009
African/Caribbean		0.4107	0.5073	0.3816	0.5889
Other Single Origins		0.6173	0.6757	0.6050	0.7609
Multiple Origins		0.4908	0.6122	0.5442	0.6617

Language Proficiency:[b]					
(1)		0.6025	0.7203	0.5279	0.6835
(2)		0.5711	0.6865	0.4549	0.6331
(3)		0.5246	0.5790	0.4611	0.6203
(4)		0.4253	0.5271	0.4079	0.5805
D. Other Controls					
Place of Residence:					
Montreal/Chicago[c]		0.5127	0.6473	0.4134	0.6130
Toronto/Los Angeles[c]		0.4983	0.5965	0.4126	0.5686
Vancouver/Miami[c]		0.5668	0.6772	0.4834	0.6873
---/New York City[c]		---	---	0.4136	0.5523
---/San Francisco[c]		---	---	0.4316	0.6086
Other Metropolitan Areas		0.5916	0.7384	0.4737	0.6468
Non-Metropolitan		0.6402	0.7496	0.5193	0.7066
Notes:					
[a]	Model III was estimated for four groups of older immigrants: Canada/female. Canada/male, U.S./female, and U.S./male.				
[b]	Language proficiency in official language(s) is not comparable for Canada and the U.S. See text and Table 1 for description of how this variable is coded.				
[c]	The first city listed is for Canada and the second city is for the U.S.				

Figure 1. Predicted Proportions Living Alone by Age: Canada and U.S., Female and Male Older Immigrants
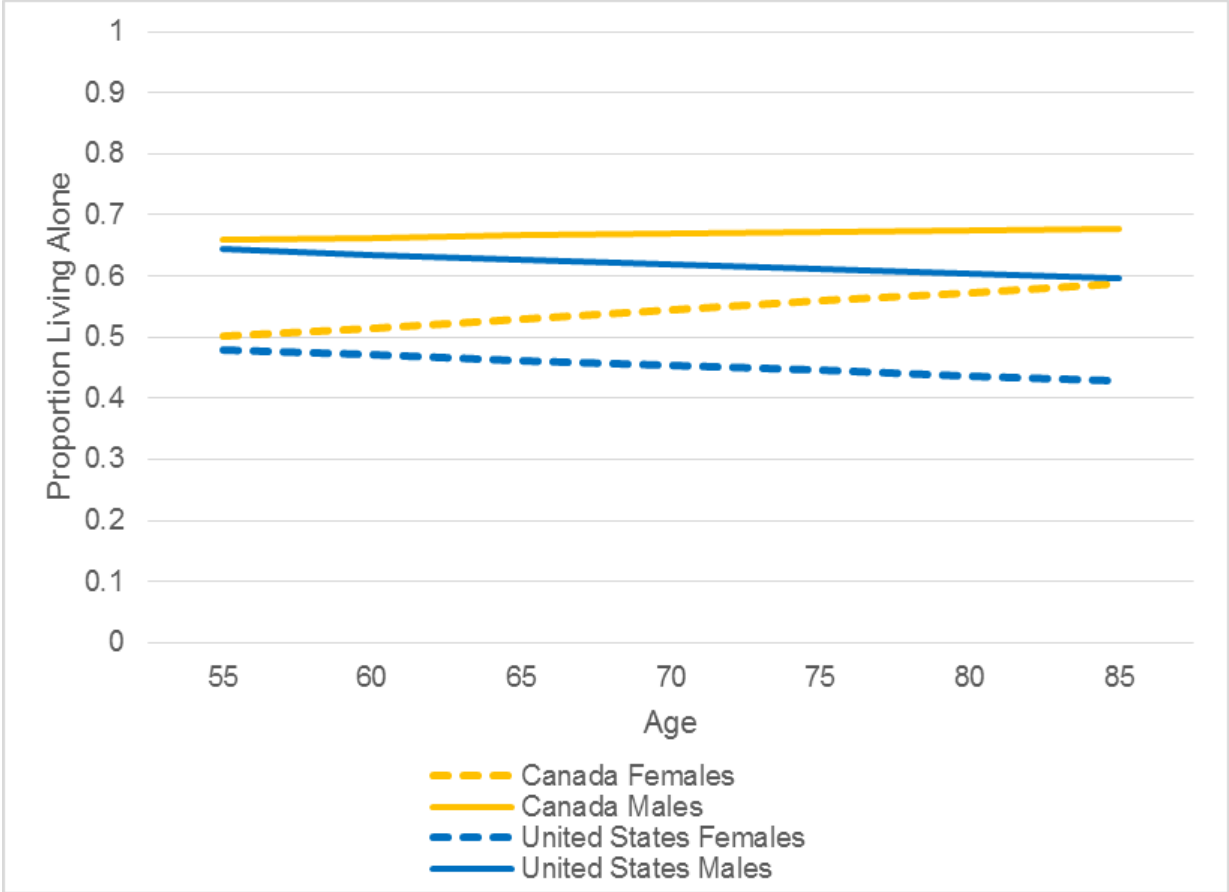
Figure 2. Predicted Proportions Living Alone by Individual Income: Canada and U.S., Female and Male Older Immigrants
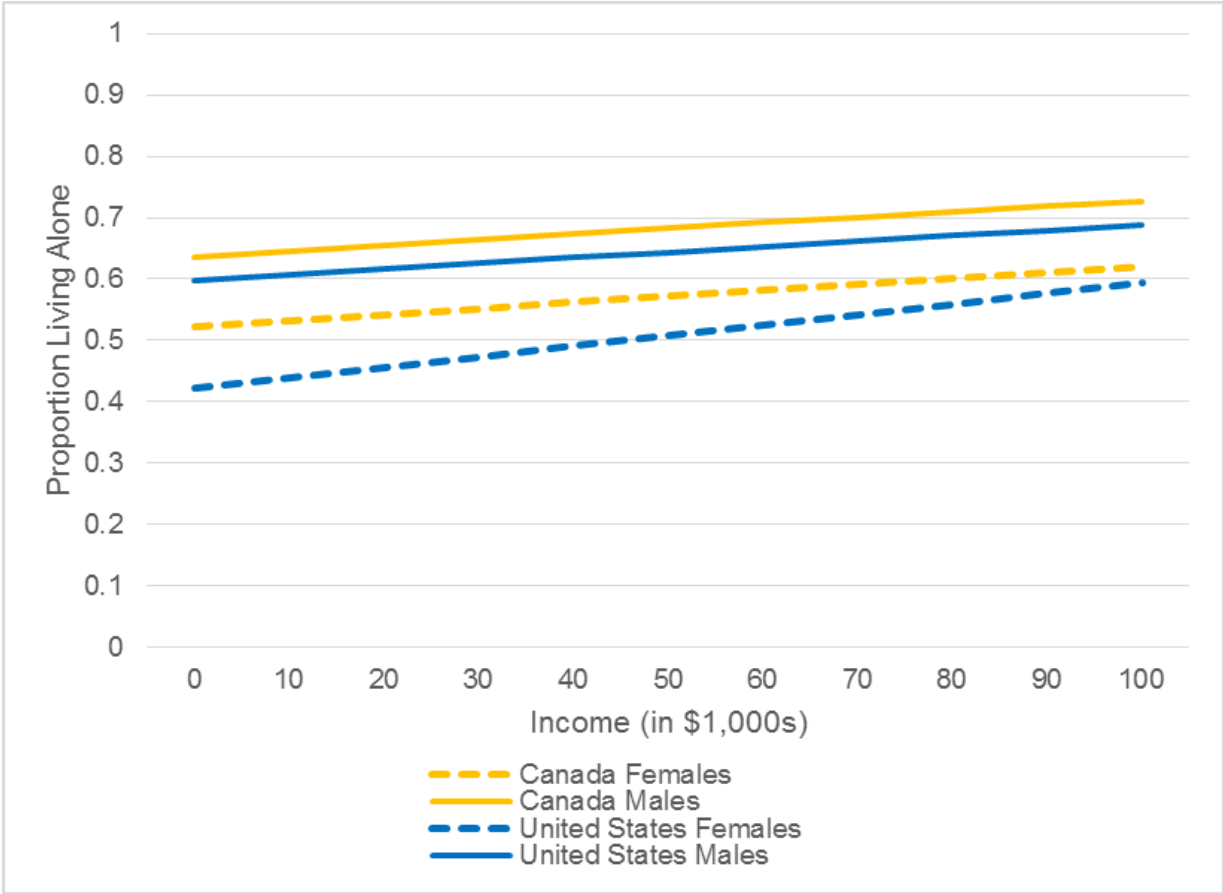
Figure 3. Predicted Proportions Living Alone by Duration of Residence: Canada and U.S., Female and Male Older Immigrants