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*Research Article*

**Putting on the moves:  
Individual, household, and community-level  
determinants of residential mobility in Canada**

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## Table of Contents

1	Introduction	768
2	Residential mobility – who moves and why?	769
3	Where do people move?	771
4	Method	773
5	Findings	775
5.1	Findings from the Canada-wide regression model	778
5.2	Findings by size of community	782
6	Discussion	787
7	Acknowledgments	790
	References	791

## **Putting on the moves: Individual, household, and community-level determinants of residential mobility in Canada**

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### **Abstract**

#### **BACKGROUND**

Internal residential mobility is an important contributor to economic vitality, helping to address gaps in the labour market, assisting regions to develop comparative advantages, and encouraging the circulation of skills, capital, and networks within a country. Mobility is, however, a complex sociological phenomenon influenced by individual, household, and community-level variables.

#### **OBJECTIVE**

This article examines the combined impact of individual, household, and community characteristics on both short- and long-distance residential mobility in Canada. The study is motivated by a broader concern with economic development and community vitality, particularly in smaller towns and cities that have recently struggled to attract newcomers.

#### **METHODS**

A series of multilevel random intercept regression models are run on Canadian census data from 2006. Canada-wide findings are compared to those for five sizes of community – from small towns with fewer than 10,000 people to major metropolitan cities.

#### **RESULTS**

Despite the continued growth of major metropolitan areas, city size is not an attractor in and of itself. Rather, one of the most powerful draws for both small towns and large cities is the diversity of the existing population, as measured by the proportion of residents who are immigrants and/or visible minorities.

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## **CONCLUSIONS**

These findings challenge some long-held stereotypes about rural living, and suggest that rural development strategies ought to include measures for enhancing diversity as a means of attracting all types of internal migrants to small towns and cities.

## **1. Introduction**

According to economists, internal mobility is an important contributor to economic vitality in capitalist economies. Under ideal circumstances the voluntary relocation of people from one region to another can help mitigate problems of supply and demand in the labour market, assist regions to develop comparative advantages, and encourage the circulation of skills, capital, and networks within a country (Borjas 2005). Sociologically speaking, however, mobility is a more nuanced phenomenon. People have complex and frequently non-economic reasons for moving or staying in a given region. Cultural attachments to place, stage in the life-course, skills, and family situation can all enhance or restrict possibilities for mobility (Ommer 2007).

This article examines the combined impact of individual, household, and community characteristics on residential mobility in Canada. Our research has two aims. First, we are interested in the role that these different characteristics play in internal migration more generally. Many existing studies focus either on the individual characteristics of migrants, or the characteristics of communities that are successful in attracting them (e.g., Clark and Withers 1999; Erickcek and McKinney 2006; Fotheringham et al. 2000). Considering them together permits us to identify the unique effects that individual, household, and community characteristics have on internal migration, thus yielding a more nuanced portrait of mobility and the attractiveness of certain types of places to certain types of people. Our second aim is to compare these effects across different sizes of community. Like many advanced capitalist nations, over the last fifty years Canada has become an overwhelmingly urban and suburban country. The pull of large cities, along with declining employment in traditional rural sectors such as agriculture, fisheries, and forestry, have de-populated many formerly vibrant regions of the country (Parkins and Reed 2013). Senior governments have sought to arrest this decline by encouraging new immigrants to settle in towns and small cities, with mixed results (CIC 2001; Texeria 2009). And yet there are many anecdotal examples of small towns across Canada that defy the odds and continue to grow (Young 2013). Our analysis therefore pays special attention to smaller communities, comparing their experiences to those of larger centres in the hopes of developing policy recommendations for assisting rural areas to attract newcomers.

The remainder of the article proceeds as follows. First, we discuss the existing literature regarding residential mobility in Canada and elsewhere, and introduce the key distinction between short-distance or intra-regional moves, which are less important for economic development, and long-distance or inter-regional moves, which imply the transfer of labour, skills, and capital from one region to another. We then describe the methods used in our study. Our data source is the 2006 Census of Canada, which provides information on the characteristics of people who do and do not move (individual and household), and from which we extrapolate key community characteristics such as size of population, employment profile, occupational mix, key sectors, and diversity of the existing population (as measured by the proportion of residents who are immigrants and/or visible minorities). The Census data are analyzed using multilevel random intercept regression models, which allow us to consider the individual- and household-level data as nested in communities. Following this, we present and discuss findings at the Canada-wide level, and compare results for five different community sizes (from small towns with under 10,000 residents to metropolitan cities with over 500,000 residents). The article concludes with a discussion of the scholarly and policy applications of our findings.

## **2. Residential mobility – who moves and why?**

Residential mobility has long been of interest to demographers, economists, and governments. Geographically large countries such as Canada face particular challenges with internal migration, as economies tend to be organized regionally rather than nationally (meaning that labour shortages and surpluses can exist simultaneously in different parts of the country), and where barriers to long-distance migration are high due to the sheer distances involved. Qualitative and quantitative studies of internal migration have shown that different types of people have different capacities for mobility and different reasons for moving. This section will focus on the individual and household factors associated with greater or lesser mobility (questions of “who” and “why”), while the next section addresses community-level factors that are thought to make certain places more or less attractive to potential migrants (questions of “where”).

The literature on residential mobility is divided into studies that emphasize short-distance intra-regional moves and those that are more interested in the causes and effects of long-distance inter-regional migration. Short- and long-distance moves tend to be motivated by different factors and undertaken by different people. For instance, there is a substantial body of work on residential mobility across the life-course that shows that moves are frequently associated with triggers related to life events, such as entry into the labour market, marriage, pregnancy, retirement, and widowhood (Clark

and Withers 1999; Sergeant and Ekerdt 2008). Many such “life-course” moves are short-distance, as people upgrade or downgrade their living space, move between city and suburb, or relocate to be closer to place of work. At least in North America and Europe, these short-distance movers tend to be white, young, and better educated, while minorities, the poor, and older middle-aged people tend not to move as much within cities and regions (South and Crowder 1998; Van Ham and Clark 2009). Retirement from the work force is also a spur for short-distance moving, although research by Northcott and Petruik (2013: 43) suggests that “Canadian seniors tend to age-in-place, and that when seniors do change residence, the likelihood of residential mobility decreases with the distance of the move as well as with age.”

While short-distance mobility has a strong effect on local housing markets, it does not have the broad impact on regional economic development that comes from the in- and out-migration associated with long-distance inter-regional moves (Stockdale 2006; Niedomsyl 2008). As the high-profile work of Richard Florida (2002, et al. 2008) argues, it is inter-regional moves, particularly among the highly skilled and educated, that have a profound impact on the long-term economic fates of both small towns and large cities. Most studies of inter-regional migration tend to focus on issues of human capital (individual level) and/or the labour market (regional or aggregate level) (e.g., Greenwood 1997). The core assumption in these studies is that, for working people at least, inter-regional moves pose a substantial cost that must be justified by improved opportunities for movers. This assumption has been reinforced by qualitative research that shows a large number of long-distance moves are undertaken for job opportunities and quality of life reasons (Texeira 2009), as well as by aggregate data showing that inter-regional mobility slows down during recessions and increases during periods of economic growth (Frey 2009). Overall, existing research suggests that inter-regional mobility is prompted more by pull than by push factors, although there are clear exceptions to this, as in cases of small towns, isolated regions, and single-industry communities exposed to boom-and-bust resource economies (Young 2010).

Prior literature also suggests that there are patterns in who tends to move inter-regionally. Most studies show that men are more likely than women to move long distances, that younger people are most likely to move (particularly those in their twenties and early thirties), and that higher levels of education are associated with greater mobility (Islam and Choudhury 1990; Champion et al. 1998). Married people with children living in the home are the least likely to move long distances (Greenwood 1997), while widowhood increases the likelihood of inter-regional mobility as some widows and widowers choose to relocate closer to health services or adult children living in other cities and regions (Bonnet et al. 2010). Evidence also suggests that immigrants are less likely than the native-born population to move inter-regionally (see Haan 2008: 754). In Canada, potential immigrants who commit to settling outside the

gateway cities of Toronto, Montreal, and Vancouver are given additional points in the competitive immigration system. This means that inter-regional mobility is typically high in the few years after arrival (as some immigrants relocate to gateway cities anyway after a short period of residency in smaller towns and cities) but is subsequently much lower than for Canadian-born persons (CIC 2001).

Overall, this literature leads us to hypothesize that short- and long-distance moves are likely associated with different individual and household characteristics. Specifically, we expect that long-distance moving is associated with a narrow range of individual and household-level variables, such as age (the young), gender (men), marital status (single), education (higher levels of attainment), immigration status (Canadian-born), and income (higher earners); as compared to short-term movers who we expect are more demographically heterogeneous.

### **3. Where do people move?**

The question of where people move is equally complicated. The literature on short-distance intra-regional mobility has focused predominantly on migration between cities and suburbs, particularly as these intersect with issues of race and class (e.g., Strassmann 2001; Sturtevant and Jung 2011). For most of the twentieth century, studies of long-distance inter-regional mobility tended to emphasize urbanization – specifically the emptying of rural areas as people moved to the cities. This started to change in the 1970s, as researchers began to observe population movements back to rural areas, based in part on quality of life considerations (e.g., Dillman 1979). Today there is an extensive literature on “counter-urbanization” (Mitchell 2004) as people choose to leave or avoid large cities. As mentioned earlier, most long distance moves are motivated by real or perceived employment opportunities, but a sizable minority of moves are due to family circumstances (such as illness and care), lifestyle decisions, and intangible “other” reasons (Molloy et al. 2011: 18-19). Moreover, there is significant variation in what type of region is attractive to newcomers. While the big metropolitan areas of developed nations continue to draw substantial numbers of migrants, many small- and medium-sized cities are also growing at unprecedented rates (Brennan et al. 2005). There is also evidence that different types of communities attract different types of inter-regional migration. Research by Howell and Frese (1983) shows that when adults move between regions they tend to move to similarly sized communities – from rural to rural, or metropolis to metropolis. According to their findings the determining factor is the first move following high school graduation, which then sets the “size preference” for all subsequent moves (see also Stovel and Bolan 2004). Overall, this literature

suggests that there are substantial opportunities for smaller towns and cities to attract newcomers.

The inter-regional migration literature also indicates that people are drawn to certain types of communities. Key geographic and environmental variables include climate, annual precipitation, and available housing stock (Erickcek and McKinney 2006; Brennan et al. 2005). The work of Florida (2003, et al. 2008) has highlighted the role of arts and culture and tolerance for diversity in attracting highly educated people to both small and large cities. Still, the role of ethnic, cultural, and lifestyle diversity in economic development is unclear. While some studies conclude that greater diversity has a positive effect on local wages and economic vitality (Vey and Forman 2002; Ottaviano and Peri 2006) others are either inconclusive or point to a slight negative effect (Lian and Oneal 1997; Brennan et al. 2005). Still others have found that an increase in ethnic diversity can cause outmigration of the existing population (Crowder et al. 2011).

There is also some disagreement regarding the role of different economic sectors in attracting inter-regional migrants. Universities are almost universally seen as an attractor (even excluding temporary movers, such as students), not only because they tend to be big employers, but because of their spin-off effects in fostering knowledge economy businesses. However there is also evidence that these spin-offs are much more significant in large urban centres and limited for universities located in small and medium-sized cities (Ericksek and McKinney 2006: 234; see O'Hagan and Rutland 2008 for a different interpretation). There is also substantial debate about the role of primary industries and manufacturing in increasing or decreasing attractiveness for migration. The literature prior to the 1990s unequivocally argues that a healthy manufacturing sector in particular is a major source of both population and economic growth (e.g., Wrigley 1973). But according to Florida's argument, these "old economy" sectors now discourage in-migration, in part because de-industrialization in advanced capitalist economies has curtailed hiring, and more importantly because they have a negative effect on the quality of life variables that he argues are attractive to the "creative class" of highly educated, mobile, and wealthy individuals (Florida 2003).

Overall, this literature suggests that community characteristics play a significant role in 'pulling' long-distance migrants to settle in particular places. The limitations of the dataset preclude us from measuring variables such as climate and precipitation for the 3,009 communities included in the study (see the following section). Nevertheless, we are able to test the significance of key social variables such as community size, diversity of the existing population, employment mix, and occupational profile in attracting newcomers. Based on existing research, we hypothesize that larger communities are more attractive to migrants; as are communities that are more diverse, which we define as the percentage of residents who are foreign-born immigrants and



the percentage who are visible minorities. We also expect that in-migration is associated with a vibrant arts and culture scene (measured by the proportion of citizens employed in these fields). Finally, we hypothesize that communities with a higher percentage of workers in the fields of health, education, and manufacturing are more attractive to long-distance migrants.

## **4. Method**

The primary aim of this research is to improve our understanding of what draws different types of households to relocate to different types of community. As mentioned, this relates to the broader issue of economic development and vitality, particularly for smaller communities that struggle to stay viable in an increasingly urban economy (Stockdale 2006). This problem is particularly acute in Canada, given its vast geography and employment losses in agriculture and key resource industries. Knowing what attracts people to a community, especially in smaller towns and small- and medium-sized cities, can help communities and governments plan to better meet the needs of potential migrants.

Our study is based on data from the long-form version of the 2006 Census of Canada. Three types of independent variables are used: household-level, individual-level, and community-level. Household-level variables are characteristics shared by the entire household, and include the log of the total household income, income loading (the percentage of income attributed to the highest earner), and the presence or absence of children in the home. Individual-level variables are a bit more complex. Permanent moves typically involve the relocation of an entire household. However, including the individual characteristics of all members of a household would likely confuse our findings, as these members are likely of different ages and sexes, and possess different employment statuses. We therefore consider only the individual characteristics of the highest earner in the household. This is done because of the substantial literature showing that both intra- and inter-regional moving are strongly linked to economic means and economic decisions (Greenwood 1997; Frey 2009). In other words, when variables are not easily aggregated to the household level it is presumed that the characteristics of the highest earner have the greatest impact on the likelihood of a move. These variables include the highest earner's age, sex, marital status, employment status, highest level of education, occupation, immigration status, and visible minority status.

Community-level variables are created by combining the individual-level characteristics of everyone living in that community, thus presenting a highly accurate picture of population, occupational mix, and diversity. The community-level variables

build on a strength of the Canadian Census, which is geographic classification. For instance, rather than defining Toronto according to municipal boundaries we use Census Metropolitan Areas (CMA), which include the major suburbs and bedroom communities (all major cities are treated this way). Medium-sized cities are similarly classified as Census Agglomerations (CAs) that include the peri-urban and rural areas adjacent to them. This allows us to avoid a common problem in studies of inter-regional mobility: the fact that a family can change municipalities (moving from one suburb to another) without actually engaging in an inter-regional move. In other words, the CMA and CA classifications measure the “labour market footprint” of cities, which is critical to the analysis to come. For the purposes of this paper a short-distance move is one that occurs within a CMA or CA, and a long-distance move is one that occurs between them. A long-distance move thus presumably means entering a new labour market and consumption/shopping region.

We note that the Census data have several limitations. Census data do not provide information regarding the motive for moving, nor the long-term residential history of households. Census data does not include information on climactic variables such as average temperatures and rainfall, nor on local economic indicators such as community-specific unemployment rates, GDP, vacancy rates, and so on. Our justification for these omissions is that much of this information does not exist for many of the 3,009 communities included in our analysis, and what does exist tends to follow municipal rather than census boundaries.

Finally, including city-level variables in a regression analysis creates a methodological challenge because these characteristics are shared – everyone living in Toronto, for instance, is assigned the same value for city size, immigrant population, etc. This means that observations are no longer independent, breaking one of the assumptions of OLS regression. To address this we use multilevel random intercept models, which consider individual- and household-level variables as nested in communities. In other words, random intercept models consider community characteristics as belonging to groups rather than individuals. This method allows us to consider community effects as clustered or fixed (thus addressing the issue of unobserved heterogeneity) and in this way obtain more accurate standard errors, confidence intervals, and significance tests than provided by OLS regression techniques. A wide range of potential community-level variables were tested using this method, but the final models include only those that have a demonstrable impact, positively or negatively, as predictors of mobility: log of the population, log of the immigrant population, the percentage of visible minorities living in the community, the

percentage of residents who are self-employed, the percentage of residents working in manufacturing, the education sector, and the health sector.<sup>3</sup>

Our dependent variable is whether the household changed permanent addresses at least once in the last five years (2001-2006). Given our interest in attractors (pull factors), movers are assigned to the community they have moved to rather than from (making this a study of in-migration). Students are dropped from the analysis because they tend to move independently of their household, move frequently during their studies, and their inclusion would artificially skew the findings towards university and college towns. Also excluded are households that have zero or negative incomes, households in which the highest earner is less than 15 years old or more than 86 years old, and households that have more than seven members. Early tests showed that although large households are a small minority (representing less than 0.5% of the sample) they had an overly strong effect on the models, as hardly any of them moved at all. We also note that some institutions, such as retirement homes and care facilities, identified themselves as households, and have been excluded. Temporary foreign workers and immigrants who arrived in Canada after 2001 are dropped because they did not live in Canada in the five years prior to the 2006 census. Finally, movers to communities of less than 100 people are excluded, because many such groupings are done by Statistics Canada for convenience rather than representing real communities. The total sample is 2,120,477 households across 3,009 municipalities.

Models were run on six samples – for Canada as a whole, and for five sizes of community (less than 10,000 residents, 10,000 to 50,000 residents, CAs – 50,000 to 100,000 residents, small CMAs – 100,000 to 500,000 residents, and large CMAs with over 500,000 residents). This is equivalent to interacting all variables in the Canada-wide regression with the five sizes of community variables.

## **5. Findings**

Demographic details about short- and long-distance mobility are given in Table 1. These figures are descriptive only, in that they give the percentage of people who have moved in each category without considering any other variables. Column 1 provides information for households that have moved intra-regionally. As mentioned earlier, these moves typically involve upgrading or downsizing of housing, and are linked to events in the life-course. While they are only indirectly associated with economic development they are included to see if there are any theoretically interesting

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<sup>3</sup> Some of the tested but discarded variables include: percentage working in primary industries, percentage working in public administration, percentage working in arts and culture industries, labour force participation rate, and the log of people sharing a respondent's ethnicity (co-ethnics).

differences between people who move intra- and inter-regionally. Column 2 provides descriptive information for households that have moved inter-regionally.

**Table 1: Proportion of households who moved at least once in the last 5 years, based on the characteristics of the highest earner, Canada, 2006**

		Short distance moves (intra-regional)	Long distance moves (inter-regional)
Total		0.08	0.04
Age	Less than 25	0.08	0.04
	25-29	0.08	0.03
	30-34	0.06	0.03
	35-39	0.05	0.02
	40-44	0.05	0.02
	45-49	0.06	0.03
	50-54	0.07	0.03
	55-59	0.08	0.04
	60-64	0.10	0.05
Sex	65+	0.12	0.06
	Males	0.10	0.05
Marital Status	Females	0.07	0.03
	Single	0.11	0.05
Presence of children	Married	0.03	0.01
	Divorced/separated	0.12	0.06
	Widowed	0.18	0.10
Immigrant Status	None	0.13	0.06
	One or more	0.01	0.00
Employment Equity Status	Immigrant	0.07	0.03
	Canadian-born	0.08	0.04
Highest level of schooling	White	0.08	0.04
	Visible Minority	0.06	0.02
	Aboriginal	0.08	0.04
Highest level of schooling	High school	0.10	0.05
	High school	0.08	0.04
	Trades	0.07	0.04
	College<1 yr	0.08	0.04
	College 1-2 yrs	0.07	0.04
	College 2+ yrs	0.07	0.03
	University<BA	0.08	0.04

**Table 1: (Continued)**

		Short distance moves (intra-regional)	Long distance moves (inter-regional)
	BA	0.07	0.03
	BA+	0.07	0.03
	Medical degree	0.05	0.02
	MA/PhD	0.07	0.03
Class of worker	Not working	0.12	0.06
	Paid labour	0.06	0.03
	Self-employed	0.07	0.03
Occupation	Management	0.05	0.02
	Business	0.07	0.03
	Science	0.06	0.02
	Health	0.06	0.03
	Social sciences	0.07	0.03
	Arts & culture	0.10	0.04
	Sales & service	0.07	0.04
	Trades & transport	0.06	0.03
	Primary	0.07	0.04
	Manufacturing	0.06	0.03

Note: Selection: households in which the primary earner is not in school full time.

Table 1 shows that both short- and long-distance moves are more common among households headed by younger and older people, with middle-aged people being the least mobile. Households where men are the highest earners are more likely to have moved, as are single people, the widowed, Canadian-born, and households headed by ethnic majority “whites.” Having children present in the household is clearly a major disincentive to move. People outside the workforce appear to be more mobile than those who are working or self-employed. Greenwood (1997: 656) found that “migration propensities rise with education ... except for the group with the least education.” Table 1 suggests that long-distance mobility in fact decreases with education, but this will be clarified in the discussion of the regression models below. Finally, the occupation of the primary earner does not seem to have a substantial impact on mobility, although participants in the fields of arts and culture, sales and service, and primary industries are the most likely to have moved inter-regionally.

## 5.1 Findings from the Canada-wide regression model

Table 2 shows results from two random intercept regressions at the Canada-wide level. As before, the first column provides results for moves within a region, while the second contains coefficients for movers between regions. The coefficients can be interpreted as increases or decreases in the probability of having moved over the past five years. Both models control for individual, household, and community characteristics.

**Table 2: Results from 2 random intercept regressions assessing the probability of a household moving intra-regionally or inter-regionally, Canada, 2006**

			Short distance moves		Long distance moves	
			coef	sig	coef	sig
Model summary						
		Observations	2,120,477		2,120,477	
		number of municipalities	3,009		3,009	
		min obs per grp	4		4	
		max obs per grp	285,196		285,196	
		ave obs per grp	705		705	
		Prob>chi2	0		0	
Characteristics of						
	Age	Age	0.000 ***		0.000 ***	
Highest earner	Sex (male)	Female	-0.005 ***		-0.002 ***	
	Immigrant status (immigrant)	Canadian-born	0.004 ***		-0.005 ***	
	Years in Canada		0.000 **		0.000 ***	
	Employment equity Status (white)	Visible minority	0.000		0.001	
		Aboriginal	-0.005 ***		-0.007 ***	
	Marital status (single)	Married	-0.045 ***		-0.026 ***	
		Divorced/sep	-0.001		0.001	
		Widowed	0.024 ***		0.020 ***	
	Highest level of schooling (less than high school)	High School	0.002 ***		0.000	
		Trades	0.000		-0.001 ***	
		College<1 yr	0.003 **		-0.001	

**Table 2: (Continued)**

		Short distance moves		Long distance moves	
		coef	sig	coef	sig
	College 2+ yrs	0.002	**	0.001	**
	University<BA	0.003	***	0.001	*
	BA	0.006	***	0.002	***
	BA+	0.003	**	0.003	***
	Medical degree	0.003		0.003	**
	MA/PhD	0.003	***	0.002	***
Class of worker (not working) Occupation (manufacturing)	Wage labour	0.006	***	0.004	***
	Self-employed	0.007	***	0.005	***
	Arts and culture	0.007	***	-0.005	***
	Business	0.001		-0.001	
	Health	0.002		-0.001	
	Management	0.000		0.000	
	Primary occupations	0.000		-0.002	**
	Sales and service	-0.002		-0.002	***
	Sciences	0.001		-0.001	
	Social sciences	0.001		-0.001	*
	Trades and transport	0.001		-0.001	
	Log of hhld income	-0.008	***	-0.004	***
	Income loading	0.155	***	0.088	***
	Children present in hhld	-0.075	***	-0.036	***
Household characteristics	Log of city pop	-0.004	***	-0.002	**
	Log of immigrant pop	0.004	***	0.000	
	Percent visible minority	-0.087	*	0.067	**
	Percent in manufacturing	0.066	***	0.012	
	Percent in education sector	-0.016		-0.016	
	Percent in health sector	-0.048		0.034	
	Percent self- employed	-0.029	*	0.017	
	Random intercept statistics	city: id sd(cons)	0.047		0.036
	city:id sd(residual)	0.26		0.19	
	city: prob>chi2	0.00		0.00	
	interclass correlation	0.03		0.04	

Note: Comparison category for dummy variable sets are in parentheses. Significance \* p<.05; \*\*p<.01; \*\*\*p<.001.

Overall, the effects of personal characteristics on moving are fairly small but significant: significant because our sample size is very large, but small because only a small fraction of households have moved in total. Contrary to the findings of Greenwood (1997: 655) we do not find a huge effect for age. Other studies suggest that mobility tends to peak in a person's 20s and 30s (Greenwood 1997), and this pattern did emerge in the raw data shown in Table 1. However, with all other variables considered, the likelihood of having moved increases steadily with age (prompting us to consider age as a continuous rather than categorical variable).<sup>4</sup> This is likely because other controls related to the life course, such as marital status, the presence of children in the household, education, and years in Canada (for immigrants) are picking up the impact of age, particularly among younger and middle-aged people.

As expected, female-headed households are less likely to have moved than male-headed households, and single people moved more than those who are married. Consistent with Bonnet et al. (2010) we find that widowed people are quite mobile. There are some unexpected findings here as well. First, our results suggest that immigrant households move inter-regionally more than households where the primary earner is Canadian-born when all other variables are considered. Although this effect is small, it is magnified by the parallel finding that mobility increases for immigrants the longer they are in Canada. Second, the model finds that Aboriginal-headed households are less likely to have moved than white or visible minority-headed households, which contradicts other studies (Norris et al. 2003; Newhouse and Peters 2003). There are several possible explanations for this. One is that the household and community variables are picking up patterns that are normally attributed to Aboriginal people (such as household income, income loading, or even city size). Another is that Aboriginal mobility does not always involve a change in permanent address, particularly if the moves are back and forth from smaller communities (i.e., Indian reserves) to large cities.

While earlier it appeared that mobility decreased with education (see Table 1), with all variables considered it is now apparent that higher levels of schooling are associated with greater inter-regional mobility. Households in which the highest earner has a university education are more likely to have moved than those who do not (coefficient of 0.002 and above). The employment story has also changed, as people who are working or self-employed are now more likely to have moved both short- and long-distances than those outside the workforce (the mobility of retirees is likely picked up by age). Prior research suggests that some people become "involuntarily self-employed" after moving because of a lack of regular employment opportunities, especially in small towns (Matthews et al. 2009: 314). The involuntarily self-employed,

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<sup>4</sup> The square of age was also included in additional tests of the model, but did not alter the coefficients or improve the R2 model, and was thus excluded.



however, are usually weak earners who have moved to follow a spouse who has taken a new job or position. Given that our model focuses on a household's highest earner, however, it is unlikely that many in this category are involuntarily self-employed. Indeed, the fact that households headed by the self-employed are the most likely to have moved long-distance is a significant finding, given the importance of this group for endogenous economic development (Stockdale 2006). In contrast, occupation does not appear to be a big driver of mobility. Rather, it appears that certain occupations may act as anchors. Households in which the highest earner works in arts and culture industries, primary industries, or sales and service occupations are not very likely to move inter-regionally (coefficients -0.005, -0.002 and -0.002 respectively). It is noteworthy that this is the inverse of the descriptive findings presented in Table 1.

Table 2 also shows that household characteristics are important. As expected, the presence of children in the household is a disincentive for all kinds of mobility. Surprisingly, the log of the household income is negatively associated with both short- and long-distance moves – that is, poorer households are more likely to have moved than wealthier ones. This finding, however, is influenced by the second and more powerful variable, that of income loading. The high coefficients here (0.155 and 0.088) show that households with one major breadwinner are substantially more likely to have moved than households where income is split more evenly among two or more people. This makes sense, as families that have a dominant earner are freer to relocate either for convenience (short-distance) or economic opportunity (long-distance) without sacrificing the commute times or earnings potential of other people in the household (Howley et al. 2009: 5). In other words, households that rely on multiple incomes are more rooted in place, either less willing or less able to move (Fischer and Malmberg 2001: 363). While dual incomes are generally considered good for productivity, this has some potential consequences for economic development that will be examined later. The income-loading variable is so strong that if removed from the model the household income variable flips to positive, with wealthier households being more mobile than poorer ones. This suggests that the most mobile households are those with middle to higher incomes that are strongly loaded on one earner.

Finally, Table 2 shows the impact of community-level characteristics. At the Canada-wide level it appears that larger cities are not draws in and of themselves. Counter to expectations, the larger the city the less likely households are to move either within or to that city. Put in perspective, the coefficient on city size for moving to a city that has 1,000,000 residents is roughly -0.0276 (log value of 13.8 \* coefficient of -0.002). The coefficient for moving to a city of about 10,000 persons is -0.0184.<sup>5</sup> While

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<sup>5</sup> We note that using log values for city size privileges smaller cities – the log value for a city with a population of 10,000 is 9.2 whereas the value log of a population of 1,000,000 is 13.8.

the effect is small, for the purposes of this paper it is noteworthy that smaller communities are attractive to some movers when all other variables are considered.

Communities with a high number of immigrants tend to have higher internal mobility, but do not attract more newcomers than communities with a low number of immigrants. By contrast, the percentage of a community's population who are visible minorities does have an impact. The coefficient here (0.067) is based on the impact if 100% of residents were visible minorities, a clearly unreasonable expectation. Nonetheless, the effect is strong given the number of controls in the model, and the fact that visible minority status is also present as an individual-level variable. This suggests that communities with a high percentage of visible minorities are attractive to everyone, but it remains to be seen if this is only a tendency for larger cities (we revisit this question below).

The impacts of different economic sectors are considered in the same way (on the hypothetical effect of 100% employment in that sector). It was hypothesized that the presence of a university (education sector) or major hospital (health sector) serves as draws for newcomers (Erickcek and McKinney, 2006). Neither of these variables approaches significance at the Canada-wide level. In fact, the only sector to have a demonstrable impact is manufacturing, but only on short-distance mobility.

## **5.2 Findings by size of community**

Differences according to size of community are considered next. Table 3 provides partial results from random intercept regressions for towns of 100 to 10,000 people (2,793 towns), cities with 10,001 to 50,000 residents (157), cities of 50,001 to 100,000 (24), of 100,001 to 500,000 (26), and with 500,001 or more residents (9).

There are several findings here worthy of note. First, while households headed by Canadian-born people were found to be less likely to have moved long distances overall as compared to immigrants (see Table 2), they are more likely to move to small cities (10,000-50,000) and the largest cities (500,000+). Remembering that the analysis excludes the most recent immigrants (who have all moved but from outside the country), this finding suggests that Canadian immigration policies encouraging immigrants to settle outside gateway cities are having some success. Contrary to some other studies (e.g., CIC 2001) we find no evidence that immigrant-led households are disproportionately relocating to gateway cities (which tend to be large centres) after initially settling elsewhere.

**Table 3: Selected coefficients from 10 random intercept models assessing the probability of moving intra- or inter-regionally**

city size		Ito10K				10to50K			
type of move		Short distance		Long distance		Short distance		Long distance	
		coef	sig	coef	sig	coef	sig	coef	sig
Model summary	Observations	376,447		376,447		223,360		223,360	
	number of cities	2,793		2,793		157		157	
	min obs per grp	4		4		538		538	
	max obs per grp	1,798		1,798		3,794		3,794	
	ave obs per grp	135		135		1,423		1,423	
	Prob>chi2	0		0		0		0	
Characteristics of	Age	0.00	***	0.00	***	0.00	***	0.00	***
highest earner	Sex (male)								
	Female	0.000		-0.001		-0.005	***	-0.004	***
	Immigrant status								
	Canadian-born	-0.01		0.00		0.00		0.01	**
	Years in Canada	0.00		0.00		0.00		0.00	***
	EE status (white)								
	visible minority	0.01	**	0.01	*	0.01		0.01	***
	Aboriginal status								
	aboriginal	-0.01	***	-0.01	***	-0.01	***	-0.01	***
	Marital status								
	married	-0.04	***	-0.03	***	-0.04	***	-0.03	***
	(single)								
	divorced/sep	0.01	***	0.00	***	0.00	**	0.00	
	widowed	0.04	***	0.03	***	0.03	***	0.02	***
	Class of worker								
	wage labour	0.01	**	0.01	***	0.00		0.00	
	(not working)								
	self-employed	0.01	**	0.01	***	0.00		0.01	**
Household	children present in hhld	-0.08	***	-0.05	***	-0.07	***	-0.04	***
characteristics	log of hhld income	-0.01	***	-0.01	***	-0.01	***	0.00	***
	Income loading	0.14	***	0.10	***	0.14	***	0.10	***
City	log of city pop	0.00		0.00		-0.01		-0.01	
characteristics	log of immigrant pop	0.00	***	0.00	*	0.00		0.01	***
	% visible minority	-0.12	*	0.11	**	-0.03		0.04	
	% in manufacturing	0.05	**	0.01		-0.11		0.13	*
	% in educ sector	0.00		-0.01		-0.34		-0.12	
	% in health sector	-0.05		0.03		-0.33		0.23	
	% self-employed	-0.04	**	0.02		-0.14		0.11	
Random intercept statistics	city: id sd(cons)	0.05		0.03		0.04		0.03	
	city: id sd(residual)	0.26		0.21		0.25		0.20	
	city: prob>chibar2	0.00		0.00		0.00		0.00	
	Interclass	0.03		0.03		0.02		0.02	
	correlation								

**Table 3: (Continued)**

city size		50to100K				100to500K			
type of move		Short distance		Long distance		Short distance		Long distance	
		coef	sig	coef	sig	coef	sig	coef	sig
Model summary	Observations	128,081		128,081		379,001		379,001	
	number of cities	24		24		26		26	
	min obs per grp	3,799		3,799		7,942		7,942	
	max obs per grp	6,809		6,809		31,488		31,488	
	ave obs per grp	5,337		5,337		14,577		14,577	
	Prob>chi2	0		0		0		0	
Characteristics of highest earner	Age	Age	0.00 ***	0.00 ***	0.00 ***	0.00 ***	0.00 ***	0.00 ***	0.00 ***
	Sex (male)	Female	-0.007 ***		-0.001		-0.005 ***		-0.002 ***
	Immigrant status	Canadian-born	-0.01 *		0.00		0.00		-0.01 ***
	Years in Canada		0.00		0.00		0.00		0.00 ***
	EE status (white)	visible minority	0.00		0.00		0.00 **		0.00
	Aboriginal status	aboriginal	-0.01 *		0.00 *		0.00		-0.01 ***
	Marital status	married	-0.04 ***		-0.03 ***		-0.04 ***		-0.03 ***
	(single)	divorced/sep	0.00		0.01 ***		0.00		0.00
		widowed	0.03 ***		0.03 ***		0.02 ***		0.02 ***
	Class of worker	wage labour	0.01 **		0.01 ***		0.00		0.00 ***
	(not working)	self-employed	0.01 **		0.01 ***		0.00		0.01 ***
	Household characteristics	children present in hhld	-0.06 ***		-0.04 ***		-0.06 ***		-0.04 ***
log of hhld income		-0.01 ***		-0.01 ***		-0.01 ***		0.00 ***	
Income loading		0.14 ***		0.10 ***		0.14 ***		0.09 ***	
City characteristics	log of city pop	0.01		0.02		-0.02		-0.02	
	log of immigrant pop	-0.02 **		0.01		0.02 **		0.00	
	% visible minority	0.09		-0.17		-0.14		0.09	
	% in manufacturing	0.11		-0.12		0.02		0.00	
	% in educ sector	0.13		-0.91		-0.30		0.43	
	% in health sector	0.16		0.29		-0.56		0.42	
	% self-employed	-0.44		-0.12		0.78 **		0.08	
Random intercept statistics	city: id sd(const)	0.02		0.02		0.02		0.02	
	city:id sd(residual)	0.24		0.20		0.24		0.19	
	city: prob>chibar2	0.00		0.00		0.00		0.00	
	Interclass correlation	0.01		0.01		0.01		0.01	

**Table 3: (Continued)**

city size		500Kplus			
type of move		Short distance		Long distance	
		coef	sig	coef	sig
Model summary		Observations	1,013,588		1,013,588
		number of cities	9		9
		min obs per grp	45,176		45,176
		max obs per grp	285,196		285,196
		ave obs per grp	112,621		112,621
		Prob>chi2	0		0
Characteristics of	Age	Age	0.00 ***		0.00 ***
Highest earner	Sex (female)	Male	-0.006 ***		-0.002 ***
	Immigrant status	Canadian-born	0.01 ***		0.00 ***
	Years in Canada		0.00 ***		0.00 ***
	EE status (white)	visible minority	0.00 *		0.00 **
	Aboriginal status	aboriginal	0.00		0.00 *
	Marital status	married	-0.05 ***		-0.02 ***
	(single)	divorced/sep	0.00 ***		0.00 **
		widowed	0.02 ***		0.01 ***
	Class of worker	wage labour	0.01 ***		0.00 ***
	(not working)	self-employed	0.01 ***		0.00 ***
Household characteristics	children present in hhd		-0.08 ***		-0.03 ***
	log of hhd income		-0.01 ***		0.00 ***
City characteristics	Income loading		0.17 ***		0.08 ***
	log of city pop		-0.01 *		0.00 ***
	log of immigrant pop		0.02 ***		0.00
	% visible minority		-0.10 ***		0.07 ***
	% manufacturing		0.23 **		-0.24 ***
	% in educ sector		-0.29		-1.23 ***
	% in health sector		-1.39 **		1.64 ***
	% self-employed		-0.18		-0.05
Random intercept statistics	city: id sd(cons)		0.00		0.00
	city: id sd(residual)		0.26		0.17
	city: prob>chibar2		0.00		0.01
	Interclass correlation		0.00		0.00

Note: Models also include level of schooling and occupation of highest earner in household (omitted for reasons of space only).

Comparison category for dummy variable sets are in parentheses.

Significance \* p<.05; \*\*p<.01; \*\*\*p<.001.

Second, two of the major household-level variables – income loading and the presence of children in the home – act as powerful anchors in smaller communities. However, these effects are weaker in the larger cities. More precisely, households are more likely to move to larger centres despite these disincentives than to smaller towns and villages. Howley et al. (2009: 5) argue that this is because cities simply offer more opportunities than small towns for dual-income families to find work in their respective fields (see also Matthews et al. 2009). This is an indicator of the power of large cities to pull people in, and also exemplifies the challenges faced by smaller communities looking to draw newcomers.

Third, Table 3 shows that the local economic mix is significant only for the largest cities. Here we see that the percentage of the labour force employed in the health sector is a major attractor. This is an expected finding, although it is unclear why health is an attractor only for the largest cities. It may be that this is a clustering effect – cities that have large health sectors tend to attract and incubate other firms that then do a lot of hiring – an advantage that may not apply to smaller cities and towns that have hospitals. Surprisingly, a sizable education sector is not an attractor, and in large cities appears to be a disincentive for mobility. This may be because of extreme stability in the education labour market, specifically public schools, colleges, and universities. Generally speaking these are unionized workplaces that frequently have high job security, and whose members thus may not have a penchant for moving. Moreover, the large contingent labour force employed by colleges and universities (for contract teaching in particular) also frequently have primary employment in other sectors and are therefore not captured as “education sector” workers. The fact that the size of the education sector is not a significant attractor in smaller cities contradicts some other work that suggests that universities and colleges are significant pull factors (remembering that students are excluded from our sample) (O’Hagan and Rutland 2008). Contrary to expectations, a sizable manufacturing sector appears to be a disincentive for long-distance movers, although this likely has to do with long-term de-industrialization in Canada’s already small manufacturing sector. The unfortunate story here is that a declining sector is unlikely to attract many newcomers.

Finally, the models yield several intriguing findings regarding diversity. Specifically, a large visible minority population is a significant attractor for both the smallest and the largest communities in Canada.<sup>6</sup> This is an expected effect for big cities, given the large existing literature suggesting that diversity is a draw due to the cultural and lifestyle advantages that pluralism offers. This has been central to the work of Richard Florida, who argues that “all else being equal, more open and diverse places are likely to attract greater numbers of talented and creative people – the sort of people

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<sup>6</sup> Interestingly, high visible minority representation in both big cities and small towns is also associated with less short-distance moving, although it is unclear why this is the case.

who power innovation and growth’ (2003: 11). But the coefficient for the smallest communities is strikingly high (0.11), and higher than for the large cities (0.07). This suggests that diversity is an advantage for smaller communities as well, or at the very least that communities that are successful in attracting visible minorities are also successful in attracting many others (given that visible minority status is not significant as an individual-level variable). The reputation of rural Canada is that it is home to older immigrant groups (British, French, East and Northern European) and shunned by newer immigrant groups who tend to be visible minorities. This study suggests that small towns and villages that are able to break this pattern are more attractive to all kinds of newcomers – a necessary ingredient for growth.

## **6. Discussion**

The aim of this article has been to consider individual, household, and community-level characteristics together in order to get a clearer picture of the roles these variables play in influencing residential mobility in Canada. The motive for this study is an overarching concern with economic development and community vitality (Stockdale 2006). As discussed previously, small towns and cities in Canada are vulnerable due to ongoing urbanization, reduced employment in primary industries, and aging populations. At the same time existing literature suggests that there are opportunities for growth for smaller communities.

Our findings tell three stories: about the types of people who tend to move and thus form a pool or target population of promising potential migrants, about the community characteristics that tend to draw migrants to a region, and the similarities and differences in how these attractors work according to community size. We consider each in turn.

First, the models uncovered some surprises with respect to individual and household characteristics. While the descriptive data showed that Canadian-born people are more mobile, the regression models showed the opposite – when all variables are considered together, being an immigrant is a better predictor of long-distance mobility (cf. Haan 2008). While other studies conclude that immigrants tend to settle in or close to ethnic enclaves, this research suggests that they are more footloose (cf. Van Ham and Clark 2009). This finding is consistent with recent evidence that a portion of new immigrants to Canada is moving away from gateway cities (Paperny 2011). While this is usually attributed to the economic downturn of 2008-2009 that hit Toronto and Montreal particularly hard, this study, which uses data from 2006, suggests that the trend has deeper roots (Frey 2009). Regardless, it is clear that immigrants, and

especially those who have been in the country for many years, have become an important potential pool of internal migrants.

Another important group are the self-employed who, like immigrants, emerge as a mobile group only when all variables are considered together. It makes sense in the Internet age that some self-employed people are freer to choose where they would like to live. Self-employed people are also recognized as strong contributors to endogenous or ground-up economic development, and are thus an important category. Finally, the models showed that there are groups of people who tend to be grounded – either unwilling or unable to move. This category tends to include those who are married, have children in the home, and who rely on multiple incomes (have lower income loadings on the main earner). The proliferation of multiple-earner households has been one of the biggest labour market transformations of the past fifty years. This change can be read positively or negatively in different ways. Our research shows that, while it can increase household incomes, it has a definite impact on mobility, frequently grounding people who would otherwise be potential movers. It appears to be a particular disadvantage for smaller communities, which typically have more constrained labour markets than big cities and therefore fewer opportunities for the second earner (Matthews et al. 2009).

The second story told by the findings concerns the community characteristics that act as attractors to newcomers. As mentioned earlier, the decision to include all 3,009 identifiable communities in Canada in the analysis means that information such as climate, local GDP, and unemployment rates are not included. Nevertheless, the data gleaned from the census regarding population, occupational mix, and diversity are highly reliable and proved to be significant in the regression models (see for example, Fong and Hou 2009). Among the most important findings is that large cities do not attract migrants in and of themselves. In fact, with all other variables considered, movers prefer smaller communities (Brennan et al. 2005). This is an important discovery because it suggests that there is something else about large centres that make them attractive – such as diversity and economic mix – that can be emulated by smaller communities.

Third, the findings tell us about similarities and differences across community size. Among the key similarities is that communities of all sizes attract self-employed people, but that having a high percentage of self-employed people does not make a community more attractive to others. The story is quite different for visible minorities, however. For both the largest and the smallest communities in Canada, places that have a more diverse population (a higher percentage of the total population as visible minorities) are more attractive to everyone. Whether because people want to live in pluralist communities, or because visible minorities are creating jobs that prompt



newcomers to arrive, diversity is a draw. This has been well documented in large cities (e.g., Ottaviano and Peri 2006), but much less for smaller communities.

From a public policy perspective these findings suggest that senior governments can help small communities to attract newcomers in several ways. First, existing policies for encouraging immigrants to settle outside major centres ought to be strengthened. Our research reinforces anecdotal evidence that immigrants have a positive quality-of-life impact on small towns (Paperny 2011), and this effect can be encouraged by giving the location of intended settlement more weight in Canada's competitive immigration system. Second, settled immigrants should also be seen as an important pool of potential migrants. Far from being immobile, our study found that, when all variables are considered, immigrants are more likely than native-born people to move long-distance, and that the likelihood of moving increases the longer they have lived in Canada. More can be done to direct those moves toward smaller communities. Large cities typically offer more services to new and existing immigrants, such as government offices, community centers, and access to medical and education services in one's preferred language (Carter et al. 2008). Every effort should be made to extend these services to smaller communities. While government offices cannot be opened in every small town in Canada, access can be improved by ensuring that rural communities have adequate communications infrastructure. Canada's vast geography means that many rural regions continue to lack broadband Internet. The federal government has never seen this as a policy priority, relying on the provinces and the private sector to invest in rural Internet infrastructure. With more and more services migrating online, the return on investment would be significant for senior governments concerned about regional balance and rural development. Finally, access to broadband would also likely help small communities capture a larger share of self-employed persons, whom our findings suggest are more mobile than waged workers and more likely to settle outside major cities.

If Florida's (2003) thesis is correct, increasingly footloose workers are drawn to places they want to live, rather than to places they have to live in order to find work. If diversity is a draw (as our findings suggest it is), then these shifts are likely linked – attracting a more diverse group of migrants will also attract more native-born people, more self-employed people, and so on. The overall policy goal should be to make it easier for potential migrants to choose smaller communities – to facilitate a virtuous circle that, as our data show, is already being drawn in some smaller Canadian towns and cities. Senior governments should recognize this and get on board.

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