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**Where are they going?
A look at Canadian Rural In-migration
between 1991 and 1996**

Cindy-Ann Bryant

A Thesis

in

The Department

of

Sociology and Anthropology

**Presented in Partial Fulfilment of the Requirements
for the Degree of Master of Arts in Sociology at
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Abstract

Where are they going?
A look at Canadian Rural In-migration
between 1991 and 1996

Cindy-Ann Bryant

Rural areas in Canada are changing. With the continued out-migration of youth and the aging of the population, migration into rural areas has become an important issue for sustaining the population size. This research examines Census Subdivisions (CSDs) with high and low levels of rural in-migration between 1991 and 1996. The unit of analysis for this study are CSDs and the issues are explored at the community level. The findings reveal that migration is a complex topic and that there are various 'push and pull' and 'life-cycle' issues that play a role in the decision-making process. The data show that rural CSDs in British Columbia experienced the highest levels of in-migration, while the Atlantic region, specifically Newfoundland, experienced the lowest levels of in-migration. Through the use of factor and discriminant analysis techniques, the characteristics of the CSDs with both high and low levels of in-migration are uncovered. Typologies for the CSDs were constructed out of the results from the factor analysis.

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Main Research Questions:

- Which regions in Canada experienced the highest levels of rural in-migration between 1991 and 1996?
- What are the characteristics of the Canadian rural communities (CSDs) with high and low levels of in-migration between 1991 and 1996?

Chapter 1 - Introduction

1.1 Introduction

Rural areas are changing. In the past 'rural' was synonymous with agriculture and a slower pace of life. Today many rural areas are taking on urban characteristics, in part due to the current in-migration trends, including migrants from urban areas, including former rural residents who have decided to return to rural, and rural residents moving to a new rural community. Furthermore, access to new technologies allows for the typically 'urban' lifestyle in rural areas, and greater communication with other areas of Canada and the world. As with all areas of Canada, rural areas are changing due to both in- and out-migration. I am interested in where in-migration is occurring and what is unique about rural areas that are attracting new residents.

Since the early 1990's the number of births in Canada has been steadily decreasing, and the number of deaths increased while the population continues to age. Because of this low level of natural increase, the sustainability and the possibility of growth both in urban and in rural areas of Canada will depend on the amount of in-migration, drawing in new residents from both inside and outside of Canada. The rural Canadian population has been changing due to in-migration, yet that does not necessarily

reflect population growth or decline. Through the process of in-migration a community may grow, remain stable, or in combination with out-migration, may still in fact decline. The issue of this study is to look at those communities that attract new residents regardless of the overall growth of the particular community, and therefore, only one component of population growth, that of in-migration, will be examined.

This research is important because it allows a look into the types of communities that are affected by in-migration, and some of the reasons behind why these communities are attractive to in-migrants. In Canada, rural and remote areas make up 96% of the land area (McNiven *et al.*, 2000) and in 1996, 22% of Canadians lived in rural and small town areas (Statistics Canada, 1996 (a)). Therefore, the health and vitality of rural communities is not only an issue for the government and policy-makers, but affects a substantial proportion of the Canadian people.

Rural areas are increasingly becoming similar to urban areas, in some parts largely due to the migration of urban to rural. Between 1991 and 1996, 545,665 (or 54%) of internal migrants moved from a large urban centre (LUC) into a rural and small town (RST) area (Rothwell *et al.* 2002 (b):7). Rural communities now have access to many of the 'city' or typically urban services such as movie theatres, speciality restaurants, and cultural events, such as plays or musicals, which may in part be attracting new residents. With the demand and supply comes a hefty sum of economic return for those who are able to develop, provide, and work in these more recent industries, in addition to the advantages had from access to the variety of such services.

Nearly 6.3 million Canadians live in rural areas with 2.5 million living in communities that are less than 1,000 people (Mandel, 2001:64). Mandel states in his article that "across Canada, rural towns seem to be withering on their feet as shops and services vacate and move elsewhere. Banks are closing. Post offices are shutting down. Schools are empty. Hospitals are downsizing into 'wellness centres'. Grain elevators come tumbling down and stores close up. People begin to leave. Some days it seems as if they're closing everything" (2001:63). Although this statement does seem unreasonably scandalous, it is indeed the situation of some of Canada's rural and small towns. Yet, it does not tell the whole story, nor does it touch on the other rural communities that have begun to gain in population and those that have been able to maintain and reactivate their economies. Much of the loss of population, as with the gain, has been due to the migration of residents.

Mendelson and Bollman (1998a) found that the non-metropolitan population growth that has occurred over the past 20 years has not been sufficient to counter the loss due to the 2 million Canadians who moved from non-metropolitan areas to metropolitan areas. They found that in 1996, there were 18% fewer non-metropolitan residents than in 1976 (Mendelson and Bollman, 1998a: 5). However, they also found that the population outside metropolitan centres has continued to grow for the last 10 years (1986-1996), and the population within these areas has increased each inter-censal period since 1976. Yet, it is important to note that each area and region is affected differently by migration. Some

rural areas will continue to lose population, while others are able to remain stable, or gain in population.

Through the increased access to information technologies in rural communities, a transition in the types of employment available to rural areas has occurred and may have been a cause for in-migration. The use of Internet, faxes, and email has allowed people living in rural communities to remain connected to the urban centers, both nearby and around the world. In addition, transportation to and from rural areas is readily available and allows rural residents to commute to work if need be.

The topic of this thesis will focus on the level of in-migration into rural regions within Canada and the characteristics of rural areas that experience high and low levels of in-migration. My specific research questions are:

- Which regions in Canada experienced the highest levels of rural in-migration between 1991 and 1996?
- What are the characteristics of the Canadian rural communities (CSDs) with high and low levels of in-migration between 1991 and 1996?

To answer my research questions, I will first examine recent literature on the topics of what is rural, the forms of migration, and the decision-making processes involved. This will include a brief look at the different types of migration, an exploration of the definition of both rural and community, and finally a look at motivations for moving, including employment reasons, residential needs, and family life cycle changes. Once a theoretical base has been established, I then will begin to develop hypotheses about what could have happened in rural Canada between 1991 and 1996 with respect to

the levels of in-migration. I will be using the 1996 Census data, specifically looking at rural communities.

To answer my first question, 'which regions in Canada experienced the highest levels of rural in-migration between 1991 and 1996?'. I will look at the Canadian provinces and territories¹. These provinces and territories will later be collapsed into six Canadian regions. The Atlantic region will include Newfoundland, New Brunswick, Nova Scotia, and Prince Edward Island; Québec will stand on its own, as will Ontario; the Prairies include Manitoba, Saskatchewan, and Alberta; the West represents British Columbia; and the North includes the Yukon and the Northwest Territories. I will explore the levels of in-migration into rural communities found within each of these regions. Using the Census data for 1996, I will run some cross-tabulations for provinces by levels of in-migration in order to find which regions are experiencing the highest levels of in-migration.

To explore the issue deeper and to answer the second question, 'what are the characteristics of the Canadian rural communities (CSDs) with high and low levels of in-migration between 1991 and 1996?', a review of the literature will allow for some hypotheses about the types of communities experiencing in-migration to be developed. Conducting a factor analysis for both rural communities that have high and low levels of in-migration will test my expectations. These factors will help to develop a typology of

¹ In 1996 Census, at the time of data collection, Nunavut was not yet established and therefore has been omitted from this study.

the communities experiencing the highest and lowest levels of in-migration and therefore, will help to answer my question about the characteristics of these particular areas. In addition, a discriminant analysis will be run in order to identify the differences between communities with high and low in-migration. The discriminant analysis is a technique that identifies the characteristics that most differentiate the two types of communities. Consequently, the discriminant analysis will further answer my second question, 'what are the characteristics of Canadian rural communities with high and low levels of in-migration between 1991 and 1996'. Answering these research questions will provide the first step in understanding which communities experience high and low levels of in-migration and by analysing the results I can speculate on why this is occurring. The concepts and definitions used in this thesis are explored in the latter part of this chapter, followed by a review of the literature in chapter two. The research design is explored in chapter three, followed by a chapter on the analysis techniques and results found in the study. The concluding chapter summarises the major findings and discusses some of the policy implications that emerged from this research.

1.2 Concepts and Definitions

The concepts of community, rural, and migration are all complex notions and have many different interpretations. To clarify the definitions that will be used in this study, I will briefly explore how the terms have been used and defined by others. First, the issue of community will be explored, looking at both the theoretical and operational

uses of the definition. An overview of how the term rural has been used follows the discussion of community. Lastly, an outline of the various types and definitions of migration will conclude the section.

1.2.1 Community

My interest concerning in-migration into rural areas will be explored at the community level. I have chosen to research rural communities that experience in-migration since the data that is most readily available can be found at the community level. Though the term community has several meanings, the definition for this thesis is an area where people live, defined by political boundaries. Still many of the rationales and hypotheses that emerge will include issues of community at the theoretical level, including looking at relationships and ties to others.

The definition of community has also been explored at length with little agreement on a single interpretation. Hillery (1955), in his research on the definition of community, found that there were ninety-four definitions, with sixteen different concepts that were implemented by each of the authors he had researched. Hillery grouped each of the definitions of community into three categories; (1) group solidarity, (2) geographic area, and (3) socio-geographic structure and found that most of the definitions analysed considered area, common ties, and social interaction as important elements of community. Yet, Hillery found that most authors would agree that "community consists of persons in social interaction within a geographic area and having one or more

additional common ties. Students of the rural community whose definitions are analysed are found to be unanimous in claiming this formulation as a minimum requisite” (1955:111). Therefore, community is more than a place and includes relationships and social links to others.

According to Barrett, “[t]he conventional definition of community contains two minimal elements: ecology (demarcated geographical area) and solidarity (shared values and a feeling of belongingness). Smuggled into the definition are usually assumptions about social structure, behaviour, beliefs, and attitudes” (1994: 22). Although these definitions capture a theoretical understanding of community, for my research an operational definition will need to be developed.

‘Community’ for this research will be operationalized as a Census Subdivision (CSD) and the term will be used synonymously with the term CSD to describe a community. Both the theoretical and operational definitions of community will be examined below, yet the unit of analysis of rural communities will be represented by Statistics Canada’s definition of Census Subdivisions (CSDs), and will be used as my measure of community. The CSD definition is geography based and is applied to political boundaries for municipalities and Indian reserves. Although I do recognize that the decision to move to a community or CSD is based on more than geography, those issues will be explored through the variables that are included within the analysis as I try to decipher the types of communities to which individuals choose to move.

In the 1996 Census data there are 5,984 CSDs, however, for the analysis, only rural CSDs (with a population between 200² and 9,999) are of interest, reducing the number of CSDs in the study to 3,716. Furthermore, four CSDs had missing information (one in Québec, two in Alberta, and one in British Columbia) bringing the total down to 3,712. The total number of CSDs analysed is further reduced to 905; 324 CSDs when looking at those rural CSDs that experience low in-migration, and 581 CSDs when looking at those rural CSDs that experience high in-migration.

Communities can also be classified geographically as either metro-adjacent or non-metro-adjacent and rural northern and remote regions. Ehrensaft and Beeman (1992) developed these classifications for Canada, similar to Beale codes from the United States, in order to determine if the rural area was adjacent to or influenced by a nearby metropolitan area. The "rural metropolitan-adjacent" regions are Census Divisions (CDs)³ that are adjacent to metropolitan regions of 50,000 people or more. The "rural non-metropolitan-adjacent" regions are those with CDs that are non-adjacent to metropolitan areas. The "rural northern and remote" regions are based on lines of latitude, where either the area in major part or all of which is found in the north. A variable for metro-adjacency of CSDs will be included in the analysis.

² Those communities with a population less than 200 were excluded as they would be problematic within the analysis due to too few cases being available

³ A Census Division (CD) is a term applied to areas established by provincial law which are intermediate geographic areas between municipalities and the province levels. Census divisions represent counties, regional districts, regional municipalities and other types of provincially legislated areas.

1.2.2 Rural

Rural means many different things to many different people. Although we can conjure up an idea of what and where rural is, the definitive lines of the continuum between rural and urban are unclear. While the concept of rural has been extensively studied, there is little consensus on what the term captures. Typically, rural is defined as either the areas outside of urban, as a landscape generally made up of agricultural land, or as a way of life, including a set of values. In some cases 'rural' is defined by population thresholds and looking at regions in terms of degrees of rurality (OECD, 1994), as well as being defined as a residual of urban (OECD, 1994, Statistics Canada, 2002).

The OECD defines a "rural community" as communities with less than 150 persons per square kilometre. This includes individuals living in the countryside, towns, and small cities, both inside and outside of the commuting zones of urban centres. The OECD further defines "predominantly rural regions" as regions, which have over 50 % of their population living in rural communities. This is equivalent to the Canadian version of a census division (CDs) without a major city. The "intermediate regions" have 15% to 50% of their population living in rural communities, and the "predominantly urban regions" are those regions that have less than 15% of their population living in rural communities (OECD; 1994).

In order to classify different geographic spaces here in Canada, including 'rural', Statistics Canada uses geographic building blocks. du Plessis, Beshiri, Bollman and Clemenson (2001, 2002) have explored the various definitions of rural that are used when

working with Statistics Canada data. The various definitions examined can be seen in Appendix A. The basic rural definition provided by Statistics Canada defines rural areas as “sparsely populated lands lying outside urban areas” (Statistics Canada, 1997: 226).

These areas include:

- small towns, villages, and other populated places with less than 1,000 population according to the previous census;
- rural fringes of census metropolitan areas and census agglomerations that may contain estate lots, agricultural, undeveloped, and non-developable lands;
- remote and wilderness areas;
- agricultural lands.

Urban areas have a “minimum population concentration of 1,000 and a population density of at least 400 per square kilometre, based on the previous census population counts” (Statistics Canada, 1997: p.229). Areas outside these parameters are typically defined as rural.

The two most useful definitions for this research presented by du Plessis *et al.* are Census ‘rural areas’, defined as a population living outside places of 1,000 people or more; OR populations living outside places with densities of 400 or more people per square kilometre, and those areas defined as ‘Rural and Small Town (RST)’, described as populations living outside the commuting zone of larger urban centres (of 10,000 or more), including urban areas with populations less than 10,000 if the urban areas are outside the main commuting zones of larger urban centres (du Plessis, *et al.*, 2002). The “census rural” definition, on its own, is too constraining for this particular research as it

includes only the tiniest and most remote rural areas of Canada. Therefore, the two definitions will be combined to form the rural definition to be used for this study.

When the "Census Rural areas" and "Rural and Small Town" definitions are combined, the definitions profile 22% of the population, or 6.3 million Canadians, as rural (du Plessis, *et al.*, 2002:21). Furthermore, when the two definitions are overlapped, 4.3 million people are then defined as 'rural' by both definitions. Those who do not fall into the overlapping populations are those who are listed as living in either 'Census Urban' or CMA/CA areas. Therefore, the definitions of rural will be all those living in census rural and rural and small town areas, which are known as CSDs that are less than 10,000 people and living outside a larger urban centre. It should also be noted that the "rural and small town" definition is the suggested choice of the "*Definitions of Rural*" authors (2002:35) when using the definition as a starting point for research dealing with local and community level data. Therefore, this constructed definition of rural can be explored at the CSD level in order to classify the rural areas into what will be known as 'rural communities' in this study.

This created definition is similar to that used by the New Rural Economy (NRE) project (Reimer, 2002). The definition includes towns that are slightly larger than the traditional rural definition used by Statistics Canada. These small towns, a population of less than 10,000, experience similar types of difficulties as do rural areas with a population of less and 1,000, such as youth out-migration and lack of services. In addition, CSDs with a population of less than 10,000 have different resources available

and have a different 'feel' to them, than do larger urban areas. Furthermore, by combining both 'rural' and 'rural and small town' areas in the definition, I have included those people who are moving from very remote to less remote rural areas, as well as, urban people who move to areas that are slightly larger than the census rural defined communities.

Therefore, the rural definition that will be applied to this research will be:

- 1 – At the CSD level.
- 2 – Includes Canadian CSDs in all Provinces and Territories.
- 3 – Is limited to those CSDs that are found in Non-CMA/CA areas.
- 4 – Is limited to CSDs with a population greater than 199 and less than 10,000.

1.2.3 Migration

There are differing definitions of migration across disciplines. Brettell and Hollifield (2000) have examined the different definitions and concluded that migration deals with a change of residence. Although this definition is broad, Brettell and Hollifield suggest that the data collector should make the decision on a definition, in order to have a classification that relates to the research purpose.

In general, migration is defined as the "long-term relocation of an individual, household or group to a new location outside the community of origin" (de Blij and Murphy, 1999:81) whether for political, economic, or environmental reasons. In many instances, the discussion of migration is coupled with the notions of seasonal and temporary migration. Seasonal migration refers to individuals who move to a different community from their permanent residence during certain times of the year. An example

of this type of migration would be the older populations known as the “snow-birds” who migrate to Florida from Québec during the winter months in order to escape the Canadian winter weather. As for the temporary migrants, they are those who “temporarily” move to a location other than their permanent place of residence, which may include those who are seasonal migrants. This type of migration also includes migrant workers and students going to school away from home. Another form of migration is that of return migration. If a person decides to move back to the town in which s/he grew up, or a community that s/he had lived in for a certain part of their life, they are known as return migrants. International migration, or immigration will not be examined in this thesis. (See Brettell and Hollifield, 2000 for a detailed discussion).

It is important to keep in mind that the decision to move is not often one that is made on the spur of the moment, but rather involves a decision-making process for choosing the type of community and region to move to, including a look at the opportunities that are involved. For this study, only permanent migration will be explored. The reason for looking solely at this type of migration is two-fold. On the one hand, the data for this type of migration is readily available through Statistics Canada and secondly, because a permanent migrant is making a more committed decision. Individuals who have chosen to move permanently, year-round are making the greatest commitments and possibly the largest compromises. So why are they moving to a particular area?

In considering a concept such as mobility and/or migration it is necessary to take into account all of the variables and processes that affect the decision to move. There are the personal variables such as age, income, formal education levels, marital status and family status, health, occupation, and so on. In addition, there are psychological factors that need to be considered such as the potential movers' attitudes, values, current emotional ties, aspirations, and expectations. Possibly one of the most important factors in a decision to move is the type of community that is being considered for the new place of residence. For this research, these factors will be explored at the theoretical level, yet only some corresponding variables are available in the data for the analysis stage.

Throughout the decision-making process, a mover will need to consider the neighbourhood to which s/he plans to move, the types and access to services and amenities within the community, the quality of life and potential for friendships and/or family ties that may be fostered or frayed by the move. The decision to move often involves an analysis of the advantages and disadvantages associated with the move, to a particular community, to a certain province or region, and whether or not the changes in the cost of taxes, commuting, possible employment, and income merit the move.

Chapter 2 - Literature Review

2.1 Literature Review

My literature review focuses on rural migration and the types of communities⁴ to which people tend to move. Recently, the number of urban⁴ to rural⁵ migrants has increased and has tended to be higher than the migration of rural to urban, as is shown in Figure 1 below.

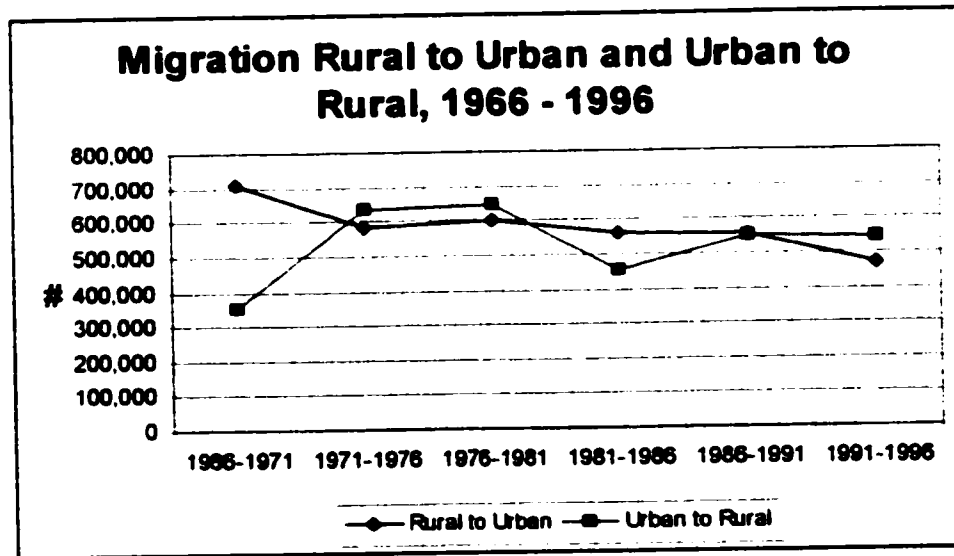


Figure #1 Migration to and from Rural Canada 1966-1996

Source: Data taken from Rothwell *et al.* (2002b:10).

The challenge is in developing a typology for the types of communities that experience high and low levels in-migration and the range of people and communities involved in the

⁴ Urban refers to urban areas that are classified as CMAs with an urban core of 100,000 or more and CAs with an urban core of 10,000 to 99,999.

⁵ Rural refers to Rural and Small Town areas with populations less than 10,000, where less than 50 percent of employed individuals commute to the urban core of a CMA.

move. Several migration theorists will be examined below, as will some the characteristics of the migrants. As only some factors can be tested with the data available, using the theoretical framework, I will infer some conclusions on those issues that are unable to be investigated within the parameters of this study.

2.2 Why is migration research important?

In 1996, 31.4 percent of Canada's population lived in predominantly rural regions⁶, and in the Atlantic provinces, Saskatchewan, the Yukon and Northwest Territories more than 50 percent of their population was found in rural regions (Beshiri and Bollman, 2001). Nonetheless, Beshiri and Bollman (2001) found that rural regions in Newfoundland and Saskatchewan are continuing to lose their population while rural metropolitan-adjacent regions are experiencing the fastest growth. In some instances, rural areas are gaining in population due to the trend in (city people) coming to play (Edmondson, 1997:30).

Migration is an integral part of the changing population in Canadian communities. Traditionally, population growth in rural areas was due to high birth rates, but today, rural growth tends to be caused by fewer rural locals leaving and more outsiders choosing to move into rural areas (Johnson and Beale, 1998). In the commonly called "revival of rural" or "rural rebound", in-migrants have been the key factor. Many elements have led

⁶ As per the OECD definition of predominantly rural regions mentioned above.

to rural in-migration including economic, social, and technological reasons. Yet, it is important to keep in mind that in-migration is but one component of growth, and in conjunction with out-migration, and the rate of natural increase, the process can allow for various levels of growth or decline in population. Migration has the potential to change the nature of certain areas, with in-migration making some large rural areas even larger and more competitive, as well as, out-migration possibly downgrading and depriving smaller more remote areas, forcing services and viable industries to close. New residents may change the make up of their new communities including the demographic characteristics, the economic situation, and the general governing or decision-making of the area. Furthermore, in some resource industry and northern communities, there may be a high turnover of residents as a result of the type of work available, leading to a high proportion of both in- and out-migration.

2.3 Migration Theory

“Bad or oppressive laws, heavy taxation, an unattractive climate, uncongenial social surroundings and even compulsion (slave trade, transportation), all have produced and are still producing currents of migration, but none of these currents can compare to the volume with that which arises from the desire inherent in most men to “better” themselves in material respects.” (Ravenstein, 1889: 286)

The process of migration is complicated. There are many contributing factors related to migration including life stage, employment opportunities, needs and the hunt for affordable housing, the desire to retire in a certain lifestyle, or any combination

thereof. Furthermore, the reasons for a move may change as the migrant ages. Yet it appears that most of the reasons related to migration all reflect the person's aspiration to improve their personal and material situation. Migration has long been studied in several fields and many theories of migration have developed out of these studies, which allow for a continued understanding of the complex system. The theories that will be explored are push and pull and life cycle theory.

In the 1880's Ravenstein, one of the first theorist to tackle the issue of migration, developed what he called 'The Laws of Migration'. These laws were based on his study of the migration patterns in Great Britain and were based on push and pull factors. The laws (1885: 198-199) follow:

- 1) "We have already proved that the great body of our migrants only proceed a short distance and that there takes place consequently a universal shifting or displacement of the population, which produces 'currents of migration' setting in the direction of the great centres of commerce and industry which absorb the migrants."
- 2) "It is the natural outcome of this movement of migration, limited in range, but universal through the country, that the processes of absorption go on in the following manner: The inhabitants of a county immediately surrounding a town of rapid growth, flock into it; the gaps thus left by the rural population are filled up by migrants from more remote districts, until the attractive force of one of our rapidly growing cities makes its influence felt, step by step, to the most remote corner of the Kingdom. Migrants enumerated in a certain centre of absorption will consequently grow less with the distance proportionately to the native population which furnishes them."
- 3) "The process of dispersion is the inverse of that of absorption and exhibits similar features."

- 4) "Each main current of migration produces a compensating counter-current."
- 5) "Migrants proceeding long distances generally go by preference to one of the great centres of commerce and industry."
- 6) "The natives of towns are less migratory than those of rural parts of the country."
- 7) "Females are more migratory than males."

According to Ravenstein's theory migration tends to occur in short distances, where the migrant is moving step-by-step from a more remote area to one that is less remote, with urban areas receiving the majority of the migrants. Each stream that is created from migration also creates a counter-stream, with major causes of migration being economic. Urban residents tend to be less mobile than rural residents are and women are more mobile than their male counter-parts.

In 1889 Ravenstein wrote a second article also entitled "The Laws of Migration", where the previously developed laws were applied to countries other than the United Kingdom, and included Canada and the United States. In this second article, he expresses that "an increase in the means of locomotion and a development of manufacturers and commerce have led to an increase of migration" (1889: 288). This suggests that when an area is developing in terms of technology and innovation, more migrants will tend to migrate there. This may explain, in part, why some rural communities are attracting migrants, as new industry, the Internet, and other new communications and technologies are now available in most areas across Canada.

Many of the issues associated with the migration process can be understood within a push and pull framework. Brown and Moore discuss push and pull factors as stress and stressors (1970:2). Geographers found some people are induced to leave (push) their origin and/or experience circumstances that attract them to certain locales (pull). These are the catalysts of migration (de Blij and Murphy, 1999). Economic factors tend to be the main reasons for a move, whether it is poverty in the place of origin or the opportunity of employment in the area of destination. A second major reason is the family. This could include retirees moving to be close to their children and friends, or young families moving to be closer to their elderly parents. An example of some of the push and pull factors can be found in Table 1.

Table 1 - Push and Pull Factors of Migration⁷

Push Factors	Pull Factors
1 - Localized recession because of declining regional income	1 - Superior career prospects and increased income
2 - Cultural or Political oppression or discrimination	2 - Improved personal growth opportunities
3 - Limited personal, family or career prospects	3 - Preferable environment (climate, housing, medical care, schools)
4 - Disasters such as floods, earthquakes and wars	4 - Other family members or friends

⁷ Table from Human Geography by William Norton. 3rd edition. Oxford University Press. Toronto, Ontario, 1998.

The push factors encourage migration. Some push factors include overpopulation or the distress resulting from an imbalance between resources and population numbers: poverty and low wages; poor climate and physical environment; agriculture decline, including declining markets for particular types of produce; the break-up of traditional communities and social ties as urban influences make themselves felt; and the lack of social services, including education and housing (Ogden, 1984:52). The pull factors include opportunities to earn better wages in the town; a wider range of occupational possibilities; better provision for housing, education, and other community facilities; and the lure of new activities, environment or people such as the cultural, intellectual, and recreational activities of a large metropolis. In terms of pull factors, much depends on an individual's perception of them as their information about new locations will be less accurate than their immediate experience of factors pushing them to move (Ogden, 1984:52). The push and pull process affects migration, yet the factors associated with the push and pull of the communities may change throughout the life cycle of the migrant.

Dorigo and Tobler (1983) used Ravenstein's theory and developed mathematical equations to explore the "push-pull migration laws". They, like Ravenstein, found that "the attractivity of a place is the difference between the pull factor and the push factor at that place. The net movement between two places is equal to the difference of their attractivities, discounted by distance as a gradient" (1983: 3). In addition, they also found that all places are related to one another and so when there is a change in one, then there

will be a change in the other. Their mathematical models can be applied to individual, as well as, aggregate level data and is relevant to all types of migration.

In addition to the push and pull of the communities of origin and destination, the issue of one's life stage is also important in the decision to move. The life cycle theory, put forth in Rossi's study (1955), suggests that as a family grows and then begins to shrink, the needs of the family are changed and there are a series of moves that may result. Rossi (1955) dealt with residential mobility, moving out of one home into another. His theory suggested that life stage and family size were the biggest factors involved in the decision to move. The decision process involves "mobility potential, housing complaints, mobility desires, intentions, and behaviour" (1955:121), all of which come together in order for a household to make the decision to move. Brown and Moore (1970) established that residential movements would be a result of the decision-making process of the household as a unit, and not as an individual decision (1970:1). Once a household sees that they are out-growing their home, the decision to move may be made.

Lee (1966) also relied on life cycle theory in that migration is similar to a 'rite of passage', where the young move away for school and/or career opportunities, and retirees, as a second wave of migration, migrate for their particular needs. In his article entitled "A Theory of Migration", he began by reviewing Ravenstein's theory and developed a general schema of spatial movement based on some of the theories that had previously been developed. The factors that he felt were involved in the process of migration were (1) factors associated with the area of origin; (2) factors associated with the area of

destination, (3) intervening obstacles, and (4) personal factors (1996: 50). It is important to note that Lee's definition of migration was very general and did not include any restrictions on the distance of the move, meaning that a person who moves across a hallway is as much a migrant as one who moves from another country.

Lee's theory explains that at the place of origin and at the destination there were both positive and negative factors, defined as such by each potential migrant, noting that not all advantages were seen as such by every migrant. Furthermore, between the place of origin and the destination there are "intervening obstacles". These obstacles include such things as distances and barriers, such as language. The response of the individuals to these obstacles also varies: some are willing to overcome and others feel the effort may be too great. These are personal factors that affect a move, including elements associated with life cycle, as well as, individual personality characteristics. In essence, Lee's theory is based on a cost-benefit analysis of what will be gained by each migrant when moving to their new destination, as opposed to what will be left behind. Yet, Lee remarked that generalizations do not apply to all migrants, and there are always exceptions when personal factors are involved.

Lee's theory is closely related to that of Ravenstein's where migrants are being pushed out of one area and pulled into another, with challenges to be faced along the way. In addition to the out-migration, there is an expected stream of in-migration, with each migrant trying to attain the goal of a better income, better housing, and/or better quality of life. Areas experiencing an economic 'boom' are expected to recruit workers from

elsewhere, allowing for an increase in migration flows. This would be considered a pull factor. Yet in some cases, such as during times of economic depression in cities, the stream of moving to towns, cities declines, while there is a counter stream of migrants moving back to rural. In these cases the flow back to rural areas may be stronger than the flow out to cities. This indicates that the poor may move to certain rural areas because of affordable housing and a less expensive life style.

The volume and rate of migration is also expected to increase as the diversity of the area rises and the obstacles begin to disappear. Lee states that "even if there were no change in the balance of factors at origin and destination, improving technology alone should result in an increase in the volume of migration" (1966: 54). So increasing technological advances affect the volume of migration, as the technology in some cases allows for the reduction in obstacles. For example, communication becomes easier and transportation becomes less expensive.

As for the characteristics of migrants, Lee found that they are selective, with each person setting their preferences on what they want and need in their new destination, as well as each having their own way of dealing with the intervening obstacles that they may face. Lee acknowledges that in some cases, people will move only because they have better offers in the destination area and not because they are dissatisfied with their current location. While others are forced to move out of their current location, either for financial, social, or political reasons, and essentially will choose any new destination that is available. In any given community however, there are those who leave for positive

reasons and those who leave for negative reasons. Lee states that if we were to “plot the characteristics of total migrants along a continuum ranging from poor to excellent, we often get a J-shaped or U-shaped curve” (1966: 56), reflecting that those who move out for positive reasons, such as for a promotion, may be equally as high for those moving out for negative reasons, such as a loss of employment.

2.4 Migrants and Motivations

Understanding motivations for a move are essential in anticipating moving patterns of migrants. These issues are important for policy-makers and community developers in order to help communities prepare for the changing population. Migration, as was shown above, is a complex process, whereby many factors and issues come into play. Although I am aware of some of the reasons why people move, I also will explore some of the characteristics of the migrants.

As mentioned above, the process of migration fits into a framework of push and pull, which is also affected by life cycle. Some of the factors or motivations involved in the decision to move are economic reasons, housing needs, family ties, and age-related requirements. In table 2 below, there is an overview of the factors and the variables that I expect to be significant to the process of migration. The factors listed can be applied to both the push and pull, and the life cycle frameworks.

Table 2 - Life Stage by Push and Pull Factors of Migration

Life Stage	Push and Pull Factors of Migration			
	Economic	Housing	Family	Other
Young (less than 25)	leave for work	leave parents home - rent / buy	may marry / begin family	Schooling
Young working age adults (aged 25-44)	finding a job / better job / higher income	needing larger home for family / affordable housing	moving close to parents and friends	language, suburbs. close to services for young families
Middle-aged Adults (aged 45-64)	moving for employment	needing smaller home / future retirement area / affordable housing	moving close to children / or parents	wanting amenities
Older Adults (aged 65 and up)	retirees / moving to affordable areas	smaller home to retire in / affordable housing	move closer to children and friends	access to services is important

The literature suggests that there seems to be several different types of people that move to rural areas including those who are retiring (Clark, 1986), and those who are still of working age but who tend to be well-off (Fetto, 1999; Halseth, 1998; Thrush, 1999). In addition, there are those who are “amenity-seekers” who move to rural areas for a better quality of life (Fetto, 1999; Halseth, 1998; Pooley, 1997), as well as those who move to a small town to raise their children (Pooley, 1997; Fetto, 1999). Johnson and Beale (1998) found that there were typically three types of people who move to rural areas: those who move for work, those who retire and move, and those who have families and want to bring them up in a rural environment. Furthermore, it is apparent that those who are moving to rural areas tend to have higher education levels (Fetto, 1999, Clark, 1986), are married, and they are dual-career couples (Fetto, 1999). Contrarily, Clark

(1986) found that those who are single have a greater propensity to move, as do home renters.

The literature reveals that some move to rural areas as a form of escape from the city and some for the purpose of retirement (Fetto, 1999; Pooley, 1997). Rural areas tend to attract “people who want to live in places where the landscape is emptier, the housing costs lower, the culture more gentle” (Pooley, 1997:2). Furthermore, migrants tend to move to rural areas in search of a better quality of life and the pull factor in many cases is the beautiful surroundings with mountains and water nearby (Thrush, 1999; Pooley, 1997; Halseth, 1998). A number of new comers to rural areas work as professionals, and in some instances, are able to work from remote areas via the Internet, and/or the use of email (Fetto, 1999; Thrush, 1999; Pooley, 1997). As for the communities that they chose to move to, they are typically close to cities (Edmondson, 1997; Thrush, 1999), and in some cases are places that are familiar to them (Fetto, 1999; Thrush, 1999).

Between 1991 and 1996 Canada’s rural and small town population increased (Mendelson and Bollman, 1998b), and areas that grew most were retirement destinations and areas that were within a commuting zone of a larger urban centre. From 1976-1996 the non-metropolitan population has generally been growing in Québec, Ontario, Alberta, and British Columbia. However, the non-metropolitan areas of Newfoundland and Saskatchewan tended to lose population in the 1980’s and early 1990’s, while the other four provinces’ non-metropolitan areas remained relatively static over the 20 year period. Interestingly, Mendelson and Bollman found that most of the growth was occurring in

small towns (centres with a population of 1,000 to 9,999), and not in the rural areas (less than 1,000 population). Therefore, part of the growth occurring in rural and small town areas is merely a continuation of the urbanisation process (Mendelson and Bollman 1998a, 1998b).

For a major part of the 20th century, rural areas tended to lose more population than it gained, still those who were moving to rural were moving typically from more remote areas to less remote areas (de Blij and Murphy, 1999: 276). Yet in the 1970's there was what became known as 'the population turnaround', the 'return to the land' movement, or 'counter-urbanization' in the United States, where many migrants chose to move to rural areas from metropolitan areas. Then during the farm crisis of the early 1980's in-migration was halted by changes occurring in rural industries. Once again more people were moving out of rural than were moving in (Johnson and Beale, 1998:16). However, the rural rebound is now back (in certain areas) in the United States. This was also found to be the case in Canada for the same time period, (Rothwell *et al.* 2002a; 2002b), as is shown in Table 3 below.

Table 3 Canada: Migration between Larger Urban Centres (LUC) and Rural and Small Town (RST) areas for individuals aged 15 and over, 1966 to 1996

	1966-1971	1971-1976	1976-1981	1981-1986	1986-1991	1991-1996
	Number					
Non-movers						
RST	4,889,295	5,583,510	5,378,435	4,548,210	4,663,105	4,907,775
LUC	10,274,340	11,496,590	13,214,775	15,067,120	16,492,170	17,715,770
Internal Migrants						
RST to LUC	711,595	582,700	599,905	563,965	554,505	469,985
LUC to RST	349,170	633,090	647,150	451,475	552,450	545,665
Total Net migration to RST	-362,425	50,390	47,245	-112,490	-2,055	75,680
	Percentages					
RST						
In-migration	6.2	10.3	10.8	8.8	10.6	10.1
Out-migration	-12.7	-9.4	-10	-11	-10.6	-8.7
Net migration	-6.5	0.8	0.8	-2.2	0	1.4
LUC						
In-migration	6.7	4.8	4.3	3.6	3.3	2.6
Out-migration	3.3	5.2	4.7	2.9	3.2	3
Net migration	3.4	-0.4	-0.3	0.7	0	-0.4
Source: Statistics Canada, Census of Population, 1971-1996						
Note: RST In-migration = (LUC-to-RST) / (RST non-movers)+(RST-to-LUC)*100.						
RST Out-migration = (RST-to-LUC) / (RST non-movers)+(RST-to-LUC)*100.						
LUC In-migration = (RST-to-LUC) / (LUC non-movers)+(LUC-to-RST)*100.						
LUC Out-migration = (LUC-to-RST) / (LUC non-movers)+(LUC-to-RST)*100.						

Rothwell *et al.* (2002a; 2002b), using Statistics Canada data, found that migration patterns in Canada reflect those of the United States. At the end of the 1960s, the Canadian rural population was declining, yet between 1971-1976 net migration flows reversed and rural and small town areas experienced a net gain of 50,000 people. This was repeated in the 1976-1981 period but to a slightly lower extent (gain of 47,000 people). Most of the gain was found to be due to lower levels of out-migration from rural

areas and higher in-migration levels (Rothwell *et al.*, 2002a; 2002b). However, between 1981 and 1991 there was the 'turnaround of the turnaround' where rural areas once again were experiencing more out-migration than they had gained. This phenomenon was due to lower levels of in-migration. During the 1990s, Canada, once again, seemed to be experiencing net in-migration, however, different from the earlier turnaround, this particular period allowed for an increase in population because of the lower levels of out-migration and was not due to higher levels of in-migration. The migration numbers for all of Canada between 1991 and 1996 (for all those aged 15 years and older) are represented in Table 4 below.

Table 4 Migration Numbers for all of Canada, 1991-1996

Age Groups - Canada	Total-Mobility Status	External Mobility	Inter-Provincial Mobility	Intra-Provincial Mobility	Non-Migrants	Non-movers
Total-Age Groups	26.604.135	928.690	890.270	3.575.025	6.130.735	15.079.410
5-14 years	3.980.590	134.650	135.680	524.775	999.640	2.185.840
15-24 years	3.848.350	184.320	151.285	574.665	908.470	2.029.600
25-34 years	4.480.030	240.925	266.265	1.019.325	1.645.115	1.308.400
35-44 years	4.841.405	176.650	171.710	672.545	1.245.650	2.574.850
45-54 years	3.696.465	89.215	82.060	359.705	648.520	2.516.960
55-64 years	2.477.560	56.075	41.995	210.510	322.090	1.846.890
65 years and over	3.279.730	46.850	41.270	213.495	361.250	2.616.865

Source: Statistics Canada, 1996 (b). Catalogue No. 93F0028XDB96010

In spite of Rothwell, *et al.*'s findings, Keddie and Joseph (1991) found that there was no truth to the Canadian version of the rural population turnaround. They concluded that the findings of the census suggest such a process, yet those results were merely an exaggeration and emerge due to the definitional and reclassification of boundaries for CSDs.

2.5 Life-Stage and the Migration Dynamic

In this section I will examine the life-stage of the migrant by the push and pull factors involved in rural migration. The reasons for migration tend to be a combination of several factors. Yet in looking at specific motives, employment appears to be the most important reason for a move, whether due to a search for a new job, a transfer, or a promotion from a current position (Jansen, 1970, George, 1970, Pourcher, 1970, Girard, *et al.*, 1970, Verma and Broad, 1989, Halseth, 1999). The second most common reason for a move is due to kin and family relationships. When moving to a new area, migrants tend to move near someone they know (Jansen, 1970, Pourcher, 1970). These moves could include rejoining with family members during an illness or after a family death, or include moves that allow for the family just to be closer.

2.5.1 Age Related Factors

The motivations of migrants change throughout the life cycle, as was Rossi's theory. The youth of some rural communities decide to move out in order to further their education, and in many instances choose to never return as employment opportunities

emerge elsewhere. Malatest and Associates (2002) found that many of the youth who leave rural to move to urban areas do so to continue their educations, for employment purposes, for family related reasons, or to get access to amenities (Malatest, 2002:16). Yet, the Malatest and Associates (2002) study also found that many of the same youth who leave rural areas, would return if their origin communities were to be made more attractive to youth. Some of the suggestions were enhanced employment opportunities, facilitating access to education and training, allowing for youth involvement in civic activities and local decision-making, tax and fiscal policy that provide advantages for youth who stay in / or return to rural areas, providing positive information about rural areas and dispelling the negative myths, and improving the social infrastructure of rural areas (Malatest, 2002).

Those who are young, working adults move to rural areas typically for two reasons, (1) for employment opportunities, and/or (2) to raise their young families in a rural setting. Similarly the middle-aged migrant may also choose to move to rural for employment, however, at this stage in their lives their children have grown and they are now planning for their retirements, which may in fact be a reason for the move to a rural community. In the later stage of the life cycle, older adults, most of who will be retired, move to rural areas in order to spend their retirement in a peaceful environment, preferably with access to services, and an attractive climate. The choice to retire in a rural community may also be influenced by the opportunity to be close to family and friends.

Verma and Broad (1989) in their study of motivational factors associated with inter-provincial migration found that employment and family-related reasons are important when considering a move, as are non-economic reasons such as retirement, health, and climate. These non-economic reasons however, were found to be highly specific to a small segment of the population and represented less than five percent of the movers (Verma and Broad, 1989: 9). Although they found that the reasons for moves relating to retirement, health, and climate were less than five percent, I suspect that with the continued trend of the aging Canadian population, these reasons for moves will become much more prevalent.

Similar to Rossi's theory, Verma and Broad (1989) show how life cycle is important in the migration process, where those aged 20-54 moved mainly for work and those 55 years and older moved for retirement and climate reasons. Those in the older age groups were found to have generally lower migration rates. However, rural and small town areas were "competitive in attracting migrants of all age classes from 25 to 69 years" (Rothwell *et al.*, 2002: 23). As for educational differences, Verma and Broad (1989) found that those with a low education (meaning some post-secondary and lower) moved for non-economic reasons, mainly family purposes, while those with higher education (post-secondary and higher) moved for employment reasons. In addition, they also found that migrants were moving for employment may also be considering climate which would explain the trade-offs that are being made when for example, moving to a nice climate may mean accepting lower wages.

The stage of life has a large influence on the mobility potential of individuals. Dupuy *et al.* (2000), in their study on rural youth, found that between 1991 and 1996 rural communities experienced a net loss of 12% of their population aged between 15 and 19. However, rural areas were net gainers of population for those aged between 25 and 64 years of age. These patterns of net in- and out-migration also varied by province, with British Columbia being the greatest gainer and Newfoundland experiencing the greatest loss. In addition, economic conditions of local areas within the provinces also affected the levels of in- and out-migration. Dupuy *et al.* found that the Atlantic provinces fare worse than the national average in terms of net gains of youth mainly because these areas have a hard time attracting individuals to their communities (2000:28). Furthermore, Dupuy *et al.* looked at return migrants and found that only one young leaver in four returned to his or her rural community 10 years later (2000:23). Hence, they concluded that it is not reasonable for rural communities to anticipate that return migrants would act as a form of population gain.

Tremblay found that between 1971 and 1996, "all provinces lost youth from their rural areas" (2001:2) and that "there was a (net) exodus of youth from rural and small town areas in each province" (2001:11). Statistics Canada found that although the individuals between the ages of 20 - 24 years of age represent the group with the highest rate of rural and small town out-migration, those individuals between the ages of 25 - 29 had the highest rate of rural and small town in-migration (Rothwell, *et al.*, 2002:18). What this suggests is that youth may need to move out of their rural homes, into other

communities in order to complete their education. Upon completion, some individuals then decide to return to their original communities. This implies that instead of the “brain drain”, that in fact due to the educated return migrants, there is a “brain gain”. Although, on average, persons leaving rural in Canada tend to have more years of schooling than the average person moving in, the “brain gain” theory was also supported by the fact that rural and small town communities “gained more individuals in each education class than it lost” (Rothwell, *et al.*, 2002:18).

In Liaw’s (1988a) study on the inter-provincial migration of young adults, she found that the propensity to migrate inter-provincially is greatly enhanced by being a mother-tongue English person in Québec, being non-native (not born in the province of residence), and/or being very well-educated (having a degree), while the non-migrant group tended to be made up of mother-tongue French people in Québec, native born (born within the province of residence), and/or being poorly educated (without a certificate or diploma). However, French speakers outside of Québec tended to be more mobile than the other language groups. In addition, Québec was found to have difficulty in attracting in-migrants. Sex and marital status were also included in her research but were not significant. In terms of ecological factors, the coldness of the origin and the attractiveness offered at the destination increased mobility.

Liaw’s (1988b) second study on intra-municipal, intra-county, inter-county, and inter-provincial migration found that motivations to move vary by certain demographic characteristics. Those who are mother-tongue French were more likely to make intra-

county and inter-county migrations, while the English group were most likely to migrate inter-provincially. The highly educated of all ages will move greater distances (*i.e.* inter-provincially) while the young with a lower level of education will move more locally. Young married couples are highly mobile, but the rate abruptly drops after this initial period. Those who were not born within the province of residence are much more mobile than both the locally born and the foreign born. And lastly those with family close to them are less likely to move than those who have few kinship ties.

Although there has been much discussion about rural out-migration, specifically of rural youth (Tremblay, 2001, Dupuy *et al.*, 2000, Jansen, 1970, Rothwell *et al.*, 2002a, 2002b, Bryant and Joseph, 2001, Liaw, 1988a, 1988b), the in-migration into rural areas has also been increasing in recent years and it is important to acknowledge the range of in-migrants moving into rural areas. Fellegi (1996) found that the "population in rural regions grew 6% between 1981 and 1991" and that the rural regions with the highest amount of growth were "adjacent to metropolitan centres (11%)". He added that rural regions that are not adjacent to metropolitan centres grew only 2% (1996:2).

Though movers tend to be the young or the middle-aged, numerous older Canadians do move, some for personal/family reasons, others for services and needs. Between 1991 and 1996, 20.2% of persons aged 65 years and older moved from their place of residence, 9.2% of which moved either to a new community, to a new province or to a new country (*cf.* Table 3 above). Of all Canadians aged 65 years and above in

1996, 20% had moved within the past five years, and of those more than half were migrants, meaning moving from one community to another.

Che-Alford and Stevenson (1998) found that of the older Canadians who are on the move, the majority of them move in order to pare down the size of their homes, whether that means buying a smaller home, or moving into a retirement residence. Moving in order to be closer to family members was the second most common reason. Third, the older populations, in general, moved to relocate to a better neighbourhood. In addition, they also found that older movers prefer to stay near their former homes.

Using the 1995 General Social Survey results, Che-Alford and Stevenson found that 75 percent of Canadians aged 60 years and over who have moved between 1990 and 1995, relocated no more than fifty kilometers from their former home and many moved only 10 kilometers away (1998:16). Of those who did choose to move farther away, only 10 percent moved 200 kilometers or more. The older the mover, the more likely they are moving for reasons of social and family support. It also appears that the older population is more likely to be a renter (55% for those 60 years and older) than a homeowner, especially for those persons ages of 70 and older (62%) (1998:18).

Peter Wolf (1999) discusses the historical archetypes of migration and describes the present forms of migration that is currently occurring as the "fifth migration". His theoretically based book describes how the current migration is different from those in the past, since the migrants are not drawn to communities for the purpose of employment, nor are they pulled to a community for such things as easy highway access. Wolf identifies

retirees as being the significant participants in this migration, while including migrants who are “skilled, well-educated, and relatively affluent people who are voluntarily relocating to promising towns and rural areas” (Wolf, 1999: 15). He believes those who make the move are holding leisure, health, and personal safety as their highest priorities.

2.5.2 Work Related Factors

The patterns of migration that occur for employment purposes tend to occur most often for those who are at the young working adult or middle-aged adult stage of life. The types of employment offered in rural areas vary widely from primary industry work, such as fishing, to manufacturing type work in factories, to office work in the municipal offices, and numerous types of service work such as policing, accommodations, and restaurants. Yet, migration is not a one-dimensional process and therefore, in addition to employment opportunities, other variables also play a valuable role in the decision.

Cadwallader, in his book on the significant movement away from large metropolitan areas towards smaller cities and rural areas in the U.S. during the 1970's, known as “counter-urbanization” or “back-to-the-land” movement, stated that “theoretically, the greater the unemployment in a region the greater the rate of out-migration” (1992:53). He relies on Ravenstein’s theory of migration and uses push and pull factors to explain reasons for migration, where high unemployment levels at the origin would constitute a push factor, and high wages at the destination would represent a pull factor.

Similar to other research, Barrett found that, for the first time in history, more people have been moving from urban to rural areas than the reverse (1994: 18). However, in contrast to some of the literature (Fetto, 1999, Clark, 1986), Barrett found, in his research on rural Ontario, that the migrants are “not remarkably well educated; most of them are working-class people aspiring to the middle class, motivated less by quality of life than by the sheer desire to own their own homes, or at least to rent an affordable townhouse” (1994: 18). This would suggest that the less wealthy classes are also moving to rural areas, however, their pull factors would be more for employment and affordability than for the quiet and peacefulness of a rural setting.

Edmondson found that agricultural communities have a low growth rate (1997:31). Migrants who move to traditionally agricultural communities may have fewer employment opportunities, as job prospects in the agricultural sector are declining. “As in most western nations, primary industries in Canada are losing jobs” (Beshiri, 2001). During the mid-1990’s, Canadian agriculture had fewer farms and a declining farm population. The decline in the farm population was in large part due to changing technology and farm size (Statistics Canada, 1999). From a high of 732,800 in 1941, the total number of census farms in Canada has declined to about 276,500 in 1996. Farm families are getting smaller, which has been one reason for the decline in the farm population. At the same time, there are proportionately more seniors on farms while the young decide to not take over their family farms, yet “overall numbers of farms have been declining, (and) the size of farms in terms of gross sales has been increasing” (Statistics

Canada, 1997). Nonetheless, if the agriculture community has begun to diversify its economy, there could potentially be other forms of employment available within these types of communities. Jacob's research of the state of U.S. agriculture found that, "one comes across a number of different claims for the productivity of the American farmer, ranging from 50 to 150 urban residents for whom one farm labourer can produce sufficient food" (1997: 238). Therefore, due to new technologies being introduced in farming, there is less need for manpower in order to complete the work that needs to be done, meaning that individuals who are moving to rural communities are not moving there in order to take up farming as a career. However, if they choose to buy a farm, most are using the land for recreational use and may decide to have a few animals mainly as a hobby.

In many instances migrants have come for the work. Both Johnson and Beale (1998) and Halseth (1999) found that when work was available in rural areas, in-migrants would come. Whether through a job transfer, or those who are looking for a new start, employment opportunities seem to be a significant pull factor. In Halseth's analysis of three forestry based BC communities, he found that of the 472 respondents, half stated that their decisions to move were based on employment opportunities and affordability (1999: 10). Of those who moved for employment, 40-46% came from other rural and small town areas and a majority of the in-migrants had previous experience living in non-metropolitan communities. This implies that, in some communities, the in-migrants are moving from other rural areas.

Due to the increase in the access to information technology, some people who hold career positions outside of their rural communities are now able to work from home via Internet, email, with a fax, a cell phone, and video conferencing (Johnson and Beale, 1998). This technology also has improved the residents' connectedness to the city, allowing for a change of pace of life, while still persisting in the workforce through the use of such tools. The movement to rural areas, "which began in the back-to-nature 70's but stalled in the 80's, has roared back because of powerful technological forces that are decentralizing the American economy. The Internet and the overnight-shipping boom are enabling high-tech industries once tied to urban centres to settle in the countryside, creating jobs for skilled workers almost anywhere" (Pooley, 1997:2). Similarly, in many rural communities in Canada, workers and industries can be productive and efficient through the use of these tools. As part of a government initiative to help get Canadians connected to the Internet, a Community Access Program (CAPs) is available to many rural Canadians. This access to communication tools allows for people to work from almost anywhere and has resulted in new industries popping up in the rural landscape.

2.5.3 Housing Related Factors

In Rossi's study of 906 households he found that those who are renting their dwelling are more likely to want to move, perhaps because "renters are freer to move than owners" (1955:69). He also found that in all regional areas, "full families were the most

potentially mobile of all household types” (1955:71). Rossi’s study found that there were three generalizations that emerged when looking at migration:

- The younger the head of a household, the higher its inclination toward mobility.
- The larger the household, the higher its mobility.
- Age and size are independently related to mobility, although age is somewhat more strongly related than household size (1955: 71).

Surprisingly, Rossi also found that family income, previous mobility, and occupation were not factors that distinguished those households who wanted to move versus those who wanted to stay (1955:90). However, within my study, I still expect to find that income and occupation will have a role in the decision-making process for rural in-migrants. Although I am unable to look specifically at the reasons behind the move, I will speculate on the income levels of the community, and its participation rate, as well as, the types of employment available. The differences between my study and that of Rossi’s are that Rossi was looking particularly at urban migrants while my study includes rural in-migrations, as well as the fact that his study was conducted in the early 1950’s, whereas I am looking at the early to mid-1990’s. Furthermore, my study is on Canadian migration rather than U.S.

Brown and Moore (1970) suggest that many factors influence the selection of a new residence including accessibility, physical characteristics of the neighbourhood, services and facilities available, the social environment, and the site and dwelling characteristics (1970:5). Similarly to Rossi’s notion, they found that as the household and family needs change, and push factors emerge, (or stressors as named by Brown and

Moore). the decision to move occurs. Although their research was focused on intra-urban migration, the framework is one that can be applied to other forms of residential mobility.

Stouffer's theory focussed on the importance of distance in the process of migration. His article, mainly mathematical, looks at how "intervening opportunities" are important when examining levels of migration. Stouffer suggested that "the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities" (1940: 846). In Stouffer's study, "opportunities" referred to the availability of vacant homes (for rent) and the intervening opportunities were represented by all the available homes between the place of origin and the destination. Therefore, it is the place or destination that is important and not the distance, meaning that if a person was planning on moving from, for example, Montreal to Winnipeg but found a suitable home for rent in Ottawa, then the home for rent in Ottawa would be the intervening opportunity.

Although most of the literature focuses on individual characteristics and individual choices that draw people into rural areas, as opposed to community characteristics, I am able to draw inferences about the types of communities that will experience in-migration from the theories regarding individual choice. I expect to find that most communities that have high levels of in-migrants have varying characteristics, including current locals with a high number of resources, financial stability, high levels of formal education, and flexibility within their occupations to move to and live in rural areas. I anticipate that these new comers moving to rural areas are doing so for various

reasons, including employment opportunities, affordability, to raise their families, as a place for retirement, and for the access to recreational activities.

Chapter 3 - Research Design

3.1 Ecological Inference

In June 1950, Robinson published a paper in the American Sociological Review and popularized the term 'ecological fallacy' to describe any incorrect inferences about individual behaviour from aggregated data. When data is collected at a geographic level, such as at the CSD level, in order to find out about individual behaviour, this can lead to the 'ecological fallacy', where a researcher fails to "consider the possible effects of making inferences to individuals from aggregate data" (Langbein and Lichtman: 1978:5). In my study I will be using community or CSD level data, but will use theoretical claims based on the individuals' decisions to try to understand migration choices. This makes the interpretation stage of my research particularly sensitive to the ecological fallacy. Individual data was not available for my research question, so I needed to adapt to this more indirect approach. Langbein and Lichtman suggest that in some cases "there may even be a gain in precision by aggregation procedures"(1978:5), as there may be more that can be learned from group level data, yet that it is "theory, not technique, that is the key to ecological inference" (1978:61).

I will proceed by using the Census data looking at the CSD level to classify rural communities. This means that the empirical analysis will rely on the examination of aggregate-level characteristics. I will use theoretical claims regarding individual-based characteristics and processes to interpret these aggregate-level characteristics. The manifestation of these individual choices and actions, therefore, will only be apparent as

they are reflected in the aggregate-level data. In all cases, the focus will be on the explanation of the CSD level characteristics. Although this method will not explain why individuals choose to move to specific types of rural areas, what it will do is help to determine why certain rural areas experience high in-migration while others experience low levels of in-migration.

3.2 Hypotheses

I anticipate that some of the factors that most affect the level of in-migration would be the age of the population in the CSD, the average income level of the CSD, the employment opportunities offered, the family structure of current residents, the education level of the residents, and the region in which the CSD is located. Regionally, I expect that the Atlantic region will experience that lowest proportion of in-migration, while British Columbia would attract the greatest proportions. This result is expected due to the employment situations within each of these regions.

Following from Rossi's (1955) argument regarding life cycle, I expect that CSDs with high levels of in-migration will have two distinct age categories. Retirees would be one category, including those aged 65 and over. Although residents who have the luxury of retiring at a younger age, representing those who are 50 years old and up, could have been included in the retiree category, I decided that this would not add to my research, as there is no way of determining whether this age category, at the CSD level, truly would represent retirees, as opposed to those who are still working and who simply moved to a

new CSD in which they plan to retire. The retirees have likely chosen to move to a rural area for its available amenities and a place to enjoy their free time. The other category would be those who are middle aged who have the freedom to move to rural areas due to their financial situation at that particular stage in life. The middle-aged category, many who are still working, may also be able to work from home or have made the decision to accept the trade-off of living in a rural CSD, while needing to commute to work. Some of these middle-aged migrants may also represent those who have the luxury of retiring at a younger age.

Employment opportunities are said to be one of the most significant pull factors for migrants. (Halseth, 1999, Verma and Broad, 1989) therefore, it is expected that some migrants moving to rural may do so for jobs. Many different types of employment exist in rural areas. Service or tourist industry type communities, as well as, resources based communities are expected to attract new residents. Agriculture and primary industry areas are expected to attract few migrants due to the decrease in employment opportunities (Beshiri, 2001, Statistics Canada, 1999, Edmondson, 1997). CSDs with high in-migration are also expected to have high levels of commute to work. This is expected mainly due to the lack of employment opportunity in some rural areas. Some may also prefer to live in 'bedroom communities', where their quality of life will include a quiet, peaceful rural atmosphere, while still living within commuting distance of a larger or urban area where many amenities and services will be available, including employment.

There is also the option of self-employment. People living in rural areas who are self-employed will participate in various types of employment such as landscaping, snowplowing, service-type industry, small businesses, et cetera. Yet, some may be self-employed are classified as such as a mere consequence of working in a primary industry, including farming. In addition, there are those who work for "others" but who have a non-spatially restrictive job, who are able to work from practically anywhere due to the increased accessibility of telecommunication technologies. The recent developments in information technology have allowed for new types of self-employment to emerge. The issue of farming being included in the self-employment category will be explored further in section 3.3.

For marital status, I anticipate that CSDs with high in-migration would have a high number of couples, whether married or common-law. Fetto (1999) suggested that married couples are most mobile, yet I expect that they would move to areas with other married or common-law couples. Therefore, CSDs with a high level of in-migration will have a lower proportion of people who live alone, including single, divorced, separated, and widowed. Although it may be difficult to move with children, CSDs with a high proportion of families are expected to experience high levels of in-migration. Families would typically be pulled to areas with other children and family type services and activities.

Place of birth is included as being an important factor. It is expected that CSDs with high levels of in-migration will also have a high proportion of residents who are born in the area. This relies on the assumption that people move to places that they know, or places that are familiar to them. This would include migrants who are moving back to their CSD of birth, or are moving to areas that are similar to the areas in which they grew up, in some cases includes retirees who return to their 'home town' to retire. In addition, most moves are short moves as was discussed by Ravenstein, which would support the assumption that most moves that take place would occur within the province of residence.

Tourist-oriented and service type communities are likely to have high levels of in-migration because people will be attracted to the beautiful surroundings often offered by these types of areas (Thrush, 1999, Pooley, 1997, Halseth, 1998). Many tourist areas use their historical roots and heritage as a novelty to attract new comers and passers through to connect, if only briefly, with the residents of the area. Farming communities, on the other hand, may have a harder time of drawing in a new population. In many cases, farming communities are flat landscapes with few mountains. Therefore, many of the attractions that bring people in are not as evident. In addition, it would seem much more likely that there would be more employment available in tourist or service type communities than in farming communities, due to the fact that many farms have become much more mechanical and needing fewer hired hands (Beshiri, 2001).

3.3 Data

The data used for this research is from Statistics Canada's 1996 Census. The population being analysed will be those who were living in rural CSDs at the time of data collection. This includes all persons who as of May 1996 usually lived in a rural household, even if they were temporarily away on business, were away at school, or were on vacation. In addition, this includes all persons whom:

- usually live in the household, including new-born babies, room-mates, boarders, and live-in employees;
- Sons or daughters who live somewhere else while attending school but return to live at the home for part of the year;
- Children in joint custody who live in the household most of the time (or if they spend equal time with each parent, include them if they are staying in the home on May 14, 1996);
- Persons from another country who live in Canada and have work, student, or Minister's permits, or person claiming refugee status, and family members living with them;
- Persons who usually live in the home but are now in an institution (such as a home for the aged, a hospital or prison), if they have been there less than six months; and
- Persons staying in the home on May 14, 1996, who have no usual home elsewhere.

The concept of mobility refers to the movement of people. In my study, mobility involves those who have moved within the five year period between 1991 and 1996, whether these were individuals who moved within Canada, those who were landed immigrants, or those who were Canadian-born, living outside of Canada in 1991, but had returned to live in Canada by 1996. The reason for using the five year cut-off, as opposed to the one year, is because the five year option includes both the most recent in-

migrations (1 year) and those who moved since the last census. This shows the true change in population due to in-migration from the last census count.

The formal definition of the variable for migration is represented by the level of in-migration that a census sub-division (CSD) has experienced within a 5 year period.

The specific question on the 1996 census questionnaire was:

- *Where did this person live 5 years ago, that is, on May 14, 1991?*

The answer categories were:

- Lived at the same address as now.
- Lived at the different address in the same city, town, village, township, municipality or Indian Reserve.
- Lived in a different city, town, village, township, municipality or Indian reserve in Canada.

Specific name of:

- City, town, village, township, municipality or Indian reserve
- Province / territory
- Lived outside Canada
- Specific name of country

The respondent is then classified into non-mover if no difference exists;

otherwise, the person is classified as a mover. This categorization is called mobility status, as compared to 5 years ago. Within the category of mover, a further distinction is made between non-migrants and migrants. This difference is called migration status. Migrant refers to a mover who has moved from a different CSD within Canada or was living outside of Canada five years earlier. This variable was originally broken down into six response categories (*cf.* Figure 2): (1) non-movers, (2) movers who are non-migrants (meaning that they still live in the same CSD as five years prior), (3) movers who are

migrants into a different CSD but the same census division (CD), (4) movers who are migrants into a different CD but same province, (5) movers who are inter-provincial migrants, and (6) movers who are external migrants. For the purpose of this study, in-migrants are those who are of importance. Therefore, I recoded the variable into a new one called 'Migrant5' (*cf.* Appendix B for a list of the variables used), which represented all those who were migrants within the past 5 years, including moves to different CSDs, whether internal or from outside of Canada.

Total Population aged 5 years and older in Canada	Non-Movers (1)		
	Movers	Non-Migrant (2)	
		Migrant	Internal (3, 4, 5)
			External (6)

FIGURE #2 Breakdown of Migration Variable

When looking at in-migration nationally, the distribution (*cf.* Figure #3) does not provide obvious break-points in the data to reclassify CSDs by levels of in-migration. Because the purpose of this research is exploratory, the decisions was made to categorize migration levels into high, average, and low levels of in-migration and to break the data into thirds with three equal groups. The range for the variable representing percentage of in-migration for rural CSDs was between 0 and 76.47%, with a mean of 17.1%. In order to establish the three equal groups of high, average, and low in-migration, a frequency analysis of the levels of in-migration with a three group cut-off was administered on all of Canada's rural CSDs and produced the cut-off points at 11.93%, 20.0%, and the

maximum at 76.47%. Therefore, the final variable for levels of in-migration was broken into three groups. (1) CSDs with low in-migration (Lowest-11.93%). (2) CSDs with average in-migration (11.94%-20.00%), and (3) CSDs with high in-migration (20.01%-Highest). Only the low and high in-migration categories will be examined in the factor and discriminant analyses. A table of the number and proportion of rural CSDs by province or territory by level of in-migration can be found in section 4.1 below.

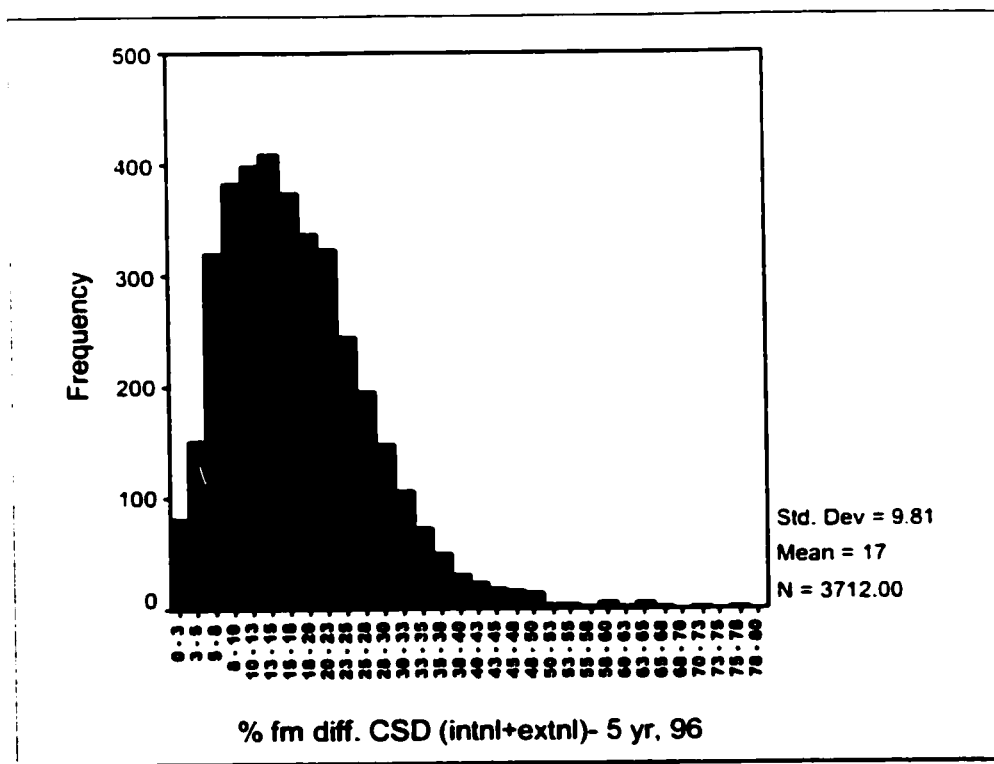


Figure #3 Level of In-migration Histogram, 1996

The in-migration variable was established using national norms in order to develop the cut-offs. Yet, a regional exploration of in-migration will also be included. The implications of using a national grouping as opposed to a regional one, is that the regional data results will be skewed, in some cases, due to the national cut-offs. However, the question driving this study is 'what are the characteristics of the Canadian rural communities with high and low levels of in-migration between 1991 and 1996?', and therefore, using national levels of in-migration allows for such a question to be explored. The issue of the regional distribution of CSDs by levels of in-migration when using national norms will be explored in the analysis chapter.

3.4 Variables and Recodes

When looking at migration patterns, many variables were considered. It is important to note that many of the variables included were recoded for the analysis. One element of migration that was examined was regional migration patterns. Regions refer to provinces and territories in Canada to which migrants move. Another location variable that was included was the place of birth variable. The only part of the original variable that was incorporated into the analysis was the proportion of residents born within the province, as it indicates a possible pull factor, such that the migrant wants to return to, or stay in, a familiar area.

The variable that represents the percentage of people living alone was combined to include those individuals who are single, those who are divorced, those who are separated, and those who are widowed. The reason for combining all four of those categories is because those who are living alone are anticipated to be less likely to move to a new CSD. Those in a husband/wife or common-law relationship are expected to be more mobile (Fetto, 1999). This would include those who have recently married, or those who have a family and want to raise their children in a 'better' CSD.

The family structure variables examined were husband and wife or common-law families that have children at home, as well as, lone-parent families. The reason for keeping them separate is because in some cases two parent families will have higher income due to the possibility for dual incomes, while lone-parent families may have a higher proportion of low income. The specific variables examined were the proportion of husband and wife/common-law families, and lone-parent families. These variables represent the young adult stage of the life cycle. Single, or people living alone, may also move (Clark, 1986). They are expected to move to make a new life for themselves after a tragedy (*i.e.* death) or hardship (*i.e.* separation or divorce), or they may just be looking for a better life and have the freedom to move wherever they desire. Note that students who move away for school are not included in this category if their usual place of residence is at home with parents.

The commuter variable represents those who commute to work. This variable is specific to commuting to a different CSD, including those who commute to a different CSD that are within the same CD. This may represent a 'bedroom community', meaning a place where people live, but do not work. This variable is an indicator of some of the trade-offs that individuals make when moving to a rural CSD.

The percent of self-employed variable represents both men and women who are self-employed, whether they be incorporated or unincorporated. This variable will include farmers, as well as, other types of business owners. Although I am aware that there will be many other types of employment, other than farming, included within the self-employed variable, the reason for incorporating farmers into this variable is because as a result of owning one's farm and working in the primary industry, these farmers are considered self-employed individuals within the data.

When looking at the data in the census it is not possible to explore the proportion of persons working in agriculture who are self-employed. However, when using the Public-Use Micro-data File⁸ from 1996, which is a database that looks at individual level Data, I found that of those who are self-employed in Non-CMA/CA communities, 41.6% are working in agriculture (*cf.* Figure # 4).

⁸ The PUMF contains data from a 2.8% sample of the population enumerated in the 1996 census, and is anonymous individual level data. The file contains 122 variables on ethnic origin, labour force activity, and income levels.

% Self-employed in Non-CMA/CA Areas by Type of Industry, 1996 PUMF Data

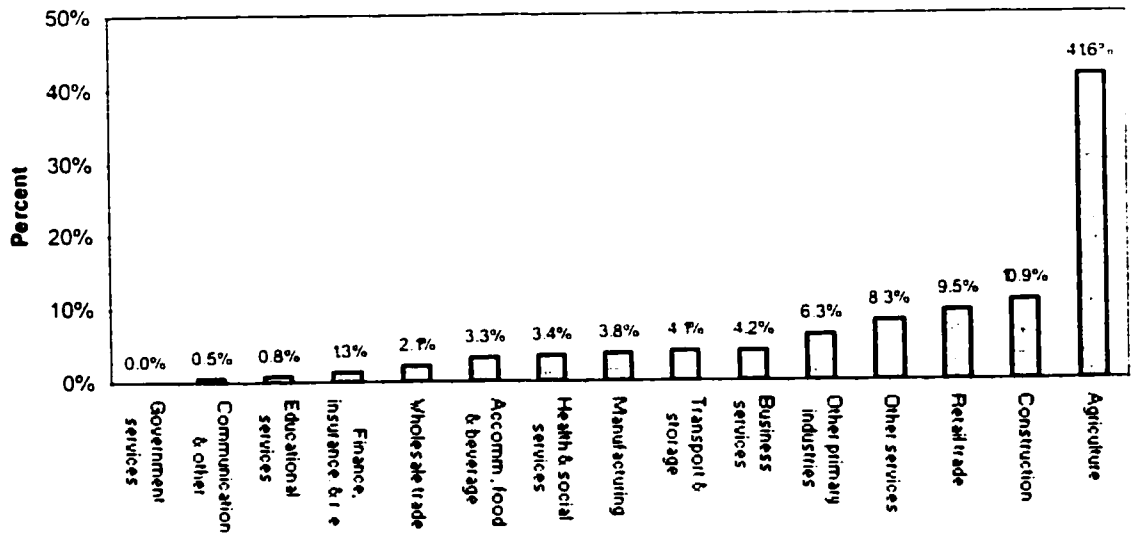


Figure #4 Self-employment by Industry Type

Though this number of agriculture industry workers may not represent exactly the proportion for the Canadian census, it does give us a good estimate of the proportion that are self-employed who are working in agriculture. Other types of industries were construction at 10.9%, and retail trade at 9.5%, which could represent such self-employment companies as Tupperware and Avon. For the percentage of residents who work at home, the variable represents all workers who work from or at home, including some who are self-employed. In 1996, of the 3,712 rural CSDs, 3,394 CSDs had some residents who were self-employed.

The variables for types of industries in which residents work were all recoded for the analysis. The percent of those working in the primary industry represents all those who work in businesses as agriculture, fishing, mining, and forestry. The percentage of residents working in secondary industries illustrates those working in construction, and manufacturing. The tertiary sector includes all those industries that are service based, including such occupations as transportation, government services, accommodation, food and beverage services, and financial and real estate businesses. For the analysis, only the primary industry and tertiary industry percentages were included in order to avoid the issue of auto-correlation. The participation rate and the unemployment rate were also included and were used in their original form as derived variables that were computed by Statistics Canada, for persons 15 years of age and older.

Education variables that were important to incorporate into the analysis were whether the residents had less than a grade nine education, and whether there were residents with a university education. These two variables were used to show the upper and lower levels of formal education in rural areas. The education variables are related to other variables, including income, types of employment, and home ownership.

Home tenure was another variable of interest. There are two variables that were included in the analyses, (1) % who own their home, and (2) % who rent their home. A third category for band housing, representing shelter occupancy on Indian reserves, will not be included in the analysis as the three combined would cause auto-correlation problems. Band housing represented 8% of all home tenure for the rural communities.

The age of residents was broken into age categories. For the analysis, three particular categories were included: (1) % of population between the ages of 25 and 44, representing the young working aged adults, (2) % of population between the ages of 45 and 64, representing those who are middle-aged, and (3) % of population who are aged 65 and over, representing the retirees. There was also a category of the population between the age of 15 and 24 years of age that was not included in the analysis, as it would cause auto-correlation problems. The reason these categories were broken down in this way was because each of the categories represents a life stage. For those who are young adults, this is when individuals are setting up their careers, starting their families, and beginning to make a substantial income. The middle-aged category represents those who are more likely to be set in a career, with their families growing up and leaving. They tend to have secure incomes. The retiree category represents those who are retired, who have the freedom to move and do what they like, and who have little income, other than their investments and pensions.

Income is a freedom resource and was an important part of the analysis. For this research I decided to use median household income as my income variable. The reason for using household is because a move is expected to include a total household, whether that is a one person household or a family household (Brown and Moore, 1970). The other income variable that was used was the incidence of low income for private households. This is a variable that measures that proportion of census families in the

CSD that are below the Low-Income cut-off point. These variables indicate the economic situation of the CSD.

Lastly, language is another variable that is important to consider when looking at migration since it may determine where people move. If migrants are unable to speak the language of the CSD it may be a deterrent for moving to that area (Liaw, 1988a, Lee, 1966). The languages that I chose to focus on were the two official languages of Canada, the proportion speaking English mother-tongue and French mother-tongue, and the proportion bilingual, to see if these influence migrant destinations. The proportion of residents who were bilingual, represents those having the ability to communicate in both French and English, whether those were the only two languages they spoke, or whether they were French and English speaking in addition to speaking another language.

Chapter 4 - Analysis, Results and Discussion

4.1 Regions of Rural In-migration

A general examination of rural in-migration reveals that there is considerable variation by region. Regions for this analysis include provinces and territories of Canada. In order to look specifically at the rural areas within these regions, I reduced my data set to only include rural communities. I then analyzed the levels of in-migration within each of the provinces and territories. Lastly, a cross-tabulation of the six regions by level of in-migration was conducted. In looking at the migration into rural CSDs between 1991 and 1996 by provinces and territories, the Yukon was found to be the area that experienced the highest percentage of high in-migration at 90% (9 CSDs), followed by British Columbia at 75.7% (137 CSDs), and Alberta at 69.3% (185 CSDs), (*cf.* Table 5 below).

**TABLE 5 Level of In-migration into Rural CSDs by Province,
Period between 1991 and 1996**

Provinces	low in-migration (#)	average in-migration (#)	high in-migration (#)	Total (#)
Newfoundland	73.3% (214)	24.0% (70)	2.7% (8)	100 % (292)
Prince Edward Island	51.2% (42)	28.0% (23)	20.7% (17)	100 % (82)
Nova Scotia	46.3% (31)	43.3% (29)	10.4% (7)	100 % (67)
New Brunswick	51.9% (107)	35.0% (72)	13.1% (27)	100 % (206)
Québec	35.6% (395)	39.9% (443)	24.5% (272)	100 % (1110)
Ontario	10.9% (67)	38.6% (236)	50.5% (309)	100 % (612)
Manitoba	31.5% (78)	37.9% (94)	30.6% (76)	100 % (248)
Saskatchewan	43.7% (258)	26.4% (156)	29.9% (177)	100 % (591)
Alberta	8.6% (23)	22.1% (59)	69.3% (185)	100 % (267)
British Columbia	6.6% (12)	17.7% (32)	75.7% (137)	100 % (181)
Yukon	-----	10.0% (1)	90.0% (9)	100 % (10)
North West Territories	23.9% (11)	47.8% (22)	28.3% (13)	100 % (46)

Areas that experienced the highest percent of low in-migration were Newfoundland, New Brunswick, and Prince Edward Island, at 73.3% (214 CSDs), 51.9% (107 CSDs), and 51.2% (42 CSDs) respectively. Interestingly the Yukon had no CSDs with low levels of in-migration which suggests that the national cut-off norms for low, average, and high in-migration are too low for the Yukon. It also suggests that the CSDs found in the Yukon are areas that are experiencing the greatest amount of in-migration, by national standards, and could be explained by the attractiveness of the active employment market in the North. When collapsing the provinces and territories into regions and looking at their levels of in-migration I found that British Columbia (75.7%), Ontario (50.5%), and the Prairies (39.6%) experience the highest proportion of in-migration (*cf.* Table 6).

TABLE 6 Level of In-migration into Rural CSDs by Regions, period between 1991 and 1996

Regions	low in-migration (#)	average in-migration (#)	high in-migration (#)	Total
Atlantic	60.9% (394)	30.0% (194)	9.1% (59)	100 %
Québec	35.6% (395)	39.9% (443)	24.5% (272)	100 %
Ontario	10.9% (67)	38.6% (236)	50.5% (309)	100 %
Prairies	32.5% (359)	27.9% (309)	39.6% (438)	100 %
British Columbia	6.6% (12)	17.7% (32)	75.7% (137)	100 %
North	19.6% (11)	41.1% (23)	39.3% (22)	100 %

Areas of average in-migration are typically found in the North, represented by the combination of the Yukon, and the Northwest Territories (41.1%), and in Québec (39.9%). As expected, the Atlantic region, including Newfoundland, Prince Edward

Island, Nova Scotia, and New Brunswick, has the highest proportion of low levels of in-migration at 60.9%. Many of these results can be explained by the economic activity within these regions.

The Atlantic has a high proportion of CSDs with low in-migration, but also is the region that has been experiencing the most difficulty with its economic and employment situation. In terms of unemployment, the Atlantic has the highest rates of all regions at 16.9%. As for Ontario, British Columbia, and the Prairies, they were booming with economic prosperity with 1996 participation rates of (66.3%), (66.4%), and (66.9%) respectively. Lastly, the Northern region is known as a place to find work, in many instances for only a short time period. The participation rate in the North is 77.4%. I presume that there are few who move to the North for its climate, however, those who do move may move for contract work and will only reside in the region for a limited amount of time. This would indicate that the North may have a high level of turn around of its population. In Québec, a region with a high proportion of average in-migration, the participation rate is (62.3%). However, Québec may have the highest levels of average in-migration due to reasons other than employment. Québec's rural areas tend to experience in-migration from within the province, rather than attracting its population from elsewhere, which may lead to only an average level of in-migration.

Thus, the answer to the first research question, 'which regions in Canada experienced the highest levels of rural in-migration between 1991 and 1996?', has been answered. Regions experiencing the highest level of in-migration are found in British

Columbia, and in the North, particularly in the Yukon. These findings suggest that most of the migration patterns may be due to economic reasons. Many migrants, during the period 1991 to 1996, moved from other areas of Canada to British Columbia for the booming employment opportunities. When exploring the largest inter-provincial migration flows between 1991 and 1996 for Canada as a whole, including rural and urban residents, British Columbia experienced an in-flow of 89,465 migrants from Ontario, and 83,770 from Alberta (Statistics Canada, 1998). These findings were also supported by recent work by Rothwell *et al.* (2002).

In order to better understand the CSDs within these regions that are experiencing low, average, and high in-migration, an example of a CSD within each of the three categories is examined. For the example of a low in-migration CSD I have chosen to look at a CSD that is found within the Atlantic region, which has a population slightly greater than 4,000, and one that experienced 8.33% in-migration in 1996. The community has been heavily dependent on primary industry employment, yet has recently shifted its employment focus to service industry type work, including tourism. Farming and forestry still remain important to the local economy.

Problems facing this CSD are the out-migration of youth and high unemployment, in addition to the ageing of the population. Some basic demographic information shows that the CSD has lost more than 4% of its population since the previous census in 1991, and has experienced a negative level of natural increase, meaning that there were more deaths than there were births within the past five years. The average age of the

population is nearly five years older than the national average of 35.8 years, with nearly 20% being over the age of 65, and 17% of its population under 15 years of age. The CSD has a participation rate of 51%, where 7.6% of residents have university degrees, and 46% are without a high school leaving. In terms of types of employment, 3.6% are working in the primary industry, 70% in tertiary, and 26.3% are working in secondary industries, with a CSD unemployment rate of nearly 21%. In this CSD 18% of families are lone-parent families.

What these statistics suggest is that this CSD has an overall low level of formal education with a high proportion of older residents. With nearly half of the population not in the labour force, well below the national average of 65.5%, and 21% who are unemployed, more than double the national average of 10.1%, there seems to be little that the employment sector can do in terms of attracting more residents. Of those who are working, most work in the service industry, with few in the primary industries of fishing, farming, and forestry which traditionally were the main source of employment within the region.

The example of an average level in-migration CSD is found in Québec and has a population of slightly more than 700 people. This CSD experienced 14.93% in-migration in 1996. Most of the residents commute to work into a different CSD, with 75% working in tertiary industries, 17% working in secondary industries, and 7% working in primary, and an unemployment rate of 7%. Since the 1991 census the population has decreased by more than 6%, and the rate of natural increase allowed for only a small gain (15 persons

total). The average age of the population is nearly two years older than the national average, with 11% being over the age of 65, and 15.5% of its population under 15 years of age. The participation rate was at 61%, with 6.8% of residents having university degrees, and nearly 30% are without a high school leaving. Within the CSD 19.5% of families are lone-parent families.

What these data suggest is that, as in the previous example, this CSD also has a low level of formal education. Yet, the CSD has a low unemployment rate of 7% which is well below the national average of 10.1%, and the provincial average of 11.8%. Most of the CSD residents who are working, are commuting to another CSD for work, and tend to be employed within the tertiary sector. This may indicate that the CSD is a bedroom community, offering little in terms of employment, which means that those who do move to this type of a CSD are doing so for other reasons, such as climate, social activities, availability of certain services, or are moving to be closer to family and friends.

The high in-migration CSD example is a resource industry town found in remote British Columbia with a population of nearly 3,800, and experienced 26.06% in-migration in 1996. Being remote and not easily accessible may be one reason for the level of in-migration within this CSD. However, it is important to note that the CSD has experienced an extensive decrease in population since the previous census with a decline of nearly 19% of its population. This would indicate that the CSD experiences a high level of turnover of its population, perhaps as a result of being a resource industry town.

In the midst of trying to diversify its economy, this CSD has 56.3% of its employment within the primary sector, 3.4% in the secondary industry, and 40.4% in the tertiary industry. The participation rate for the CSD is at 77%, well above the provincial norm of 66.4%. Since the 1991 Census the rate of natural increase allowed for only a small gain (50 persons total). The average age of the population is more than 8 years younger than the national average of 35.8 years, with less than 1% of residents being over the age of 65, and nearly 29% of its population under 15 years of age. 5.4% of residents have university degrees while nearly 32% are without a high school leaving. The unemployment rate is at 4.8%, half that of the provincial average (9.8%). The CSD has 11% of families that are lone-parent families.

The data for this CSD suggests that it is attracting residents for employment purposes, particularly in the primary and tertiary type industries. The population is very young, which may indicate that it is attracting young people for more than just employment purposes, but also to raise their young families in a family-oriented environment. Although there are few with high levels of formal education, this does not appear to hinder the labour market and employment opportunities available.

What the examples above have emphasised is that employment appears to play a big role in the level of in-migration, yet other reasons for migration are also occurring. I know that Atlantic CSDs are still experiencing in-migration but at a much slower rate than in British Columbia. The question is what makes the CSDs in the Atlantic different from those in British Columbia, other than the employment climate mentioned above.

Within the next section, I will explore various variables involved in the decision to move and will strive to further understand the differences in the characteristics of those communities with low in-migration versus those with high.

4.2 Factor Analysis

In order to identify some of the characteristics of CSDs with high and low levels of in-migration, a factor analysis was conducted. Migration, being a multi-dimensional phenomenon, lends itself well to the factor analysis method. This method was used to identify the factors that affect a CSD's level of in-migration. The factor analysis is a data reduction technique and is based on the assumption that much of the variation in a collection of variables can be explained by the relationship between the variables and the underlying 'factors' common to several of them. These underlying factors are reflected in the inter-correlations between the variables identified, enabling a researcher to establish which variables strongly relate to one another forming factors that explain a percentage of variance in the variables of interest.

Factor analysis is a form of regression analysis and is a method where "a researcher is able to examine a wide range of possible interrelationships" (Levine; 1977:5). The strategy is to conduct factor analysis on two sets of data; those CSDs with a high level of in-migration, and those with low levels of in-migration. By conducting factor analysis on each set independently I can identify patterns of relations that are common to both types, as well as, those unique to each.

Factor analysis allows for there to be more than one solution to the same problem (Levine: 1977:6). This means, for example, that there are many different factors that could be identified depending on the procedures used. In this case, I have chosen to use principle component analysis with varimax rotation. This ensures that each factor selected is significantly different than the previous one (orthogonal), maximizing the chance that relatively independent factors will be identified. The variables that were included in the analyses are selected on the basis of the theoretical discussion regarding migration. Each of them is related to one or more claims regarding such migration. The full list of the variables that were included in the analysis can be found in Appendix B.

Due to the analysis techniques that are used for this research, including both factor analysis and discriminant analysis, which will be further explained below, it is important to avoid auto-correlation between variables. This is a potential problem when using factor analysis looking at variables that have been recoded from one variable with several categories into various dummy variables that are dichotomous. In order to avoid this potential problem, one of the dummy variables needs to be excluded from the analysis. For example, the variable for the province a respondent lives in had twelve categories, with each category representing a province or territory. This variable was then recoded into dummy variables where, for example, the region of Ontario would have only two answer categories, (1) Ontario, and (2) non-Ontario, representing all other provinces and territories. This recode was conducted for each of the regions of Atlantic, Québec, Ontario, Prairies, British Columbia, and the North. Therefore, in the analysis stage, in

order to avoid auto-correlation, one of the six regions will need to be omitted. This category exclusion was also performed for all other dummy variables included in the analysis.

Kim and Mueller (1978) suggest that dichotomous variables should be avoided in the technique of factor analysis, yet leave the option open when using the variables for the purpose of exploration. The reason for concern is that in factor analysis "each variable is assumed to be a weighted sum of at least two underlying factors. Even if these underlying factors have two values, the resulting values in the observed variable must contain at least four different values" (1978:74), which is not possible with dichotomous variables. Yet, for a heuristic purpose, the use of dichotomous variables is permissible. In this research I will be using factor analysis to explore the tendencies of such variables to be related to one another and searching for "clustering patterns" (1978:75). As such, the issue of dichotomous variables is not sufficiently problematic for my particular study because of its exploratory nature and therefore, this method of analysis will be used.

4.2.1 Factor Analysis Results (High In-migration)

Before looking at the data, it is important to understand how factor analysis is interpreted. In factor analysis print out there are both positive and negative loadings, representing how a particular variable is related to each of the factors. When there is a high positive loading (being closest to +1), this indicates that the particular variable has a strong positive association to that factor and with the other variables that are included

within the factor. When there is a high negative loading (being closest to -1), this indicates that the variable has a strong negative association to the factor and with the other variables included in the factor. For example, if factor one has a +.75 loading for married common-law, and a -.75 loading for low level education, this would be interpreted to mean that the factor is associated with those who are married common-law, and those who do not have a low level of education. The identification of each factor is then inferred from the specific pattern of relationships found with each of its associated variables.

Results of the factor analysis for those communities with high in-migration show that eight important factors emerge. The eight factors, (*cf.* Appendix C), combined explain 74.9% of the variance in all of the variables chosen. The first factor explains 14.8% of the variance, and represents those living in Québec, and who primarily speak French as their mother-tongue. The factor has a high positive loading on CSDs with a high proportion of French speaking residents (.951), those rural CSDs in the province of Québec (.941), a high proportion of bilingual residents (.607), those living alone (.576), those born within the province of residence (.464), and those with less than a grade nine education (.444). The factor is also negatively associated with a high proportion of people with English as their mother-tongue (-.933).

This pattern of association provides us with a basis to speculate on the individual-level choices, and processes that might underlie the CSD-level results. Since these are CSDs that experience high in-migration, and are typically found in Québec with a high

proportion of French-speaking, and a high proportion born in the province of residence. I can speculate that the movement into these CSDs is based on language. This could reflect the movement from one CSD in Québec to another, which, indicated by Liaw (1988a), showed that most French-speaking residents of Québec who move, do not move inter-provincially, compounded by the fact that Québec has a hard time attracting in-migrants. Therefore, much of the movement within Québec in high in-migration areas may be due to residents of Québec relocating to new CSDs.

Following a similar logic, I can identify the predominant characteristics of each type of CSD as represented in the factor analysis. The resulting typology of communities that experience high levels of in-migration can be found in Table 7. The table summarizes the characteristics of all eight factors.

The second factor is associated with young working families, and explains 14.0% of the variance. The factor loads high on CSDs with a high proportion of young persons between the ages of 25 and 44 (.861), high on labour force participation rate (.844), on husband and wife / common-law families with children at home (.802), and on median household income (.717). The factor is also negatively associated with those aged 65 years and older (-.890), and on those with less than a grade nine education (-.464). I suspect that those who move into this type of CSD do so because of the possible opportunities and the services available for families.

**Table 7 - Typology of CSDs that experience
High Levels of In-migration**

Factor Number (Loadings) ⁹	Title of CSD Type	Description of type of CSD
1 (14.8%)	Québec French	This type of CSD is usually found in the Québec region, with a high proportion of people speaking French as a mother-tongue and or are bilingual and a small proportion speaking English as their mother-tongue. High proportions of the residents were born in the province of residence and are living alone.
2 (14.0%)	Young Working Families	This type of CSD has a population made up of a high proportion of young working families. Most of the population is between the ages of 25 and 44 years of age, are in a husband and wife or common-law relationship with children at home and a high participation rate as well as high median household income.
3 (11.8%)	Work at Home Primary Sector	This type of CSD has a high proportion of residents who work in the primary sector, people who work at home and are self-employed. Small proportions of residents work in the tertiary sector and are lone-parent families.
4 (10.4%)	Middle-Aged Commuters	This type of CSD has a high proportion of middle-aged residents who own their homes and who are working in a different CSD. High proportions are living in CSDs in Ontario.
5 (7.5%)	Northern Aboriginal	This type of CSD is found in the Northern region of Canada, typically the Northwest Territories and the Yukon). There are a high proportion of Aboriginal peoples and dwelling are in need of major repair. There is also a high unemployment rate.
6 (6.8%)	Western Region	This type of CSD is found in British Columbia. A high proportion of the residents were not born in the province in which they live and a relatively high proportion have a university level formal education.
7 (6.3%)	Low Socio-Economic Status	This type of CSD has a high proportion of low level formal education, with a high proportion of residents having less than a grade nine education, and a small proportion of having a university degree. There is a high unemployment rate, a small proportion working in the tertiary industry and some incidence of low income.
8 (3.5%)	Metropolitan Adjacent	This type of CSD is found adjacent to metropolitan areas, indicating that their may be a dependency of the city for employment and services.

⁹ The Loadings are "Rotation Sums of Squared Loadings" from the Factor Analysis

This would support Rossi's suggestion that stage of life cycle affect migration patterns. In addition, those moving to these types of CSDs may also do so for employment due to the high participation rate. A relatively high proportion of dual-income families are also expected, given the general economic climate of these CSDs.

The third factor represents those who work in the primary sector, most likely those living and working in farming, forestry or fishing communities. The factor loads high on those who work at home (.876), those who work in primary industries (.798), those who are self-employed (.786), and those who own their homes (.481). The factor is also negatively associated with the proportion of lone-parent families (-.565), the proportion of those who work in the tertiary industries (-.563), and those who rent their dwellings (-.493). This factor explains 11.8% of the variance. Since these are CSDs that experience high in-migration, I am left to reflect on the possible reasons. Perhaps the back-to-the-land movement, as indicated by Jacob (1997), is responsible for these in-migrants, who choose to move to rural for the slower pace of life, and to explore primary industry work, or decide to become self-employed in other respects. It could also indicate that the characteristics of these particular types of CSDs are most appealing to the in-migration and that it is the nature of the community that is acting as a pull factor. On the other hand, it may reflect resource industry towns that develop and need employees, hence attracting in-migrants. Yet, these types of communities may eventually need to diversify their industry base in order to sustain themselves.

The fourth factor explains 10.4% of the variance and represents CSDs with a high proportion of middle-aged commuters. This component is positively associated with CSDs with a high proportion of those who commute to work (.690), who are located in Ontario (.682), who own their dwelling (.642), and are middle-aged (.624). It is also negatively associated with CSDs with a high proportion of renters (-.659), and a high proportion of CSDs in the Prairies (-.608). The importance of commuting in these CSDs suggests that there are few employment opportunities within these types of communities, identifying perhaps 'bedroom communities' where the quality of life may be more important than the possibility of employment. Furthermore, the factor is associated with a high proportion of home ownership, which indicates that those who have moved to these CSDs are not planning on moving in the near future. This factor could also indicate that the housing within these CSDs is more affordable than in other areas of the country, and therefore, some may move to this type of CSD as it is the only way that they can afford to own their homes.

The fifth factor represents Northern Aboriginal communities. This factor explains 7.5% of the variance, and has a high positive association with the proportion of CSDs found in the North (including the Yukon, and the Northwest Territories) (.803). The factor also loads highly on the proportion of Aboriginal peoples (.766), and with those CSDs with a high proportion of dwellings in need to repair (.666). These areas are also moderately negatively related to by the proportion of dwellings that are owned (-.335), and positively associated with CSDs that have a high unemployment rate (.319).

What these findings suggest is that these types of communities are the northern aboriginal communities of Canada, which particularly have dwellings that are in need of major repair. Furthermore, it appears that few dwellings are owned, and that there is a relatively high unemployment rate, indicating that the CSD may be economically disadvantaged. Those who move to these types of CSDs may be Aboriginal peoples who are moving, or returning to, the CSD to be close to family and friends, or may indicate those who have moved to the North for the possibilities available in employment. However, employment opportunities may be minimal in terms of a pull factor in these types of CSDs as the factor represents a relatively high unemployment rate. This factor can also be interpreted as having a high rate of turnover in population. This could be a result of youth moving out of the community, or possibly off the reserve, in order to further their education. Furthermore, it could represent residents moving off reserves into the city or other CSDs, but who later return to their community of origin. It could also be a result of dissolving families, with partners/spouses who move out of the home and the CSD, but who then later return, reunifying their family. Thus the process of in-migration may in part be attributed to return migration.

The sixth factor depicts CSDs in Western Canada, with a high negative association with the proportion of those born in the province of residence. This factor explains 6.8% of the variance in the high level of in-migration, and loads highly on the proportion of CSDs in British Columbia (.854), and negatively high on the proportion born in the province of residence (-.622). These are also CSDs with a relatively high

proportion of educated people, loading high on the proportion with a university education (.337), and loading low on the proportion with less than a grade nine education (-.363). This pattern reflects the westward migration trend that has been underway for many years now (Rothwell, *et al.*, 2002a, 2002b), in particular due to the booming economy. The high correlation with education suggests that employment is likely to be an important motivation for the move.

The seventh factor is associated with low education levels and low income. This component explains 6.3% of the variance, and has a high negative association with CSDs with a high proportion of university educated (-.719), and a relatively high positive association with those who are unemployed (.493), those who have a high proportion of incidence of low income (.439), and those with a high proportion of less than grade nine education (.426). This factor is related to CSDs that have a high proportion of residents with a low formal education, and a high proportion of individuals who are unemployed. I would interpret these CSDs to be those that have in-migrants who are looking for inexpensive housing, and moving to rural areas because of its affordability. I also found that the factor has a relatively high loading on the proportion of dwellings in need of major repair (.339), which may also illustrate that the housing market is reasonably priced for lower income residents. This would support Nord's (1998) finding in his study of poor versus non-poor and their migration patterns. He found that when looking at the in- and out-migration patterns of both the poor and the non-poor, both groups are equally as mobile.

The eighth and final factor, explains 3.5% of the variance, and depicts CSDs that are found near metropolitan areas. The factor loads high on the proportion of CSDs that are metropolitan-adjacent (.894). These CSDs appear to be experiencing high levels of in-migration because of their location in relation to a metropolitan area. This would suggest that these areas may represent areas where urban residents are now moving out into rural areas, as a consequence of urban sprawl perhaps. These CSDs would also represent areas where rural residents move from more remote into less remote rural areas that are closer to the city. The proximity to a metropolitan area allows for better access to services and employment available within urban CSDs.

It is important to note that these eight factors represent types of CSDs, yet the typology is not exhaustive by any measure. The method of factor analysis attempts to develop factors where the variance in each is exclusive or different from all other factors. Nevertheless, these are only CSDs that have emerged out of this particular data are a result of the specific variables that were included in the analysis.

By using the factor analysis method I found that eight factors explain 74.9% of the variance. CSDs in 1996 that experienced the greatest levels of in-migration tended to be found in British Columbia and in the North, as was also illustrated earlier in the regional analysis. In addition, CSDs in Québec appear to also have high levels of in-migration, particularly in mother-tongue French speaking CSDs. Furthermore, high in-migration CSDs in rural areas tend to be associated with employment opportunities and affordable housing. Of the eight CSD types that emerged from the factor analysis, five of the CSD

types were linked to employment and three were associated with affordable housing. As was suggested by the literature, young working families were on the move (Rossi, 1955), and employment (Verma and Broad, 1989, Halseth, 1999), and housing (Stouffer, 1940, Rossi, 1955, Brown and Moore, 1970) were the primary pull factors. With the data available, 'push' factors from the place of origin cannot be examined, yet theoretically, by looking at some of the possible 'pull' factors, I can speculate that the migrants were being offered better opportunities within their new CSDs.

Therefore, when exploring the question 'what are the characteristics of the Canadian rural CSDs with high and low levels of in-migration between 1991 and 1996?'. I found that there is not one single answer, but rather, various possibilities. CSDs experiencing high levels of in-migration between 1991 and 1996 range from mother-tongue French speaking CSDs in Québec, to the Northern Aboriginal CSDs in Canada, to CSDs in British Columbia. Furthermore, as mentioned in the literature (Beshiri and Bollman, 2001, Fellegi, 1996, Edmondson, 1997), the results show that CSDs that are near larger urban areas experience high levels of in-migration.

4.2.2 Factor Analysis Results (Low In-migration)

In the factor analysis for the communities that experienced low levels of in-migration, there were seven factors that emerged as being important (*cf.* Appendix D). These seven factors explain 75.1% of the variance in the data. The first factor explains 20.8%, and tends to be associated with the Atlantic Provinces, high level of

unemployment, and work within the tertiary sector. It loads positively high on the proportion of people working in the tertiary industries (.585), the unemployment rate (.610), the proportion of people living alone (.640), living in the Atlantic regions (.582), and the proportion of people who are bilingual (.538). The factor also loads negatively high on the proportion working at home (-.892), the proportion who are self-employed (-.883), the proportion working in primary industries (-.878), the proportion living in the Prairies (-.805), and on the participation rate (-.719).

What these data suggest is that these types of CSDs are Atlantic CSDs with a high proportion of unemployment, and a high proportion living alone. The factor also loads relatively high on the proportion of young people, aged 25 to 44 (.465), and the proportion of lone-parent families (.421). These areas may to have a rate of in-migration that is low due to the lack of employment opportunities within the area, which in combination with the proportion of lone-parent families, and a relatively low proportion commuting to another CSD for work (.288), appears to indicate that these types of communities are lagging economically. Although there is a high association with the proportion who are aged 25 to 44 years, the youth may be moving out, along with the skilled workers, and those with a higher level of formal education. Because of the strength of association with the proportion who are bilingual, it would suggest that these CSDs may be found in New Brunswick. A typology of CSDs that experience low levels of in-migration can be found in Table 8 below.

**Table 8 - Typology of CSDs that experience
Low Levels of In-migration**

Factor Number (Loadings) ¹⁰	Title of CSD Type	Description of type of CSD
1 (20.8%)	Atlantic Tertiary	This type of CSD has a high proportion of individuals who live alone, who are living in the Atlantic region of Canada and who are working in tertiary industries. High proportions of residents are between the ages of 25 and 44 years of age and bilingualism, while smaller proportions are mother-tongue French speaking. There is a high unemployment rate and a small proportion of people working in primary industries. Small proportions of are self-employed and work at home.
2 (15.2%)	Middle-Aged Commuters	This type of CSD has a high proportion of middle-aged residents who own their homes and who are working in a different CSD. High proportions are living in CSDs in Ontario.
3 (12.2%)	Québec French	This type of CSD is usually found in the Québec region, with a high proportion of people speaking French as a mother-tongue and or are bilingual, and a small proportion speaking English as their mother-tongue. High proportions of the residents were born in the province of residence and are living alone.
4 (9.1%)	Young Working Families	This type of CSD has a population made up of a high proportion of young working families. Most of the population is between the ages of 25 and 44 years of age, are in a husband and wife or common-law relationship with children at home and a high participation rate as well as high median household income.
5 (8.5%)	Low Socio- Economic Status	This type of CSD has a high proportion of low level formal education, with a high proportion of residents having less than a grade nine education, and a small proportion of having a university degree. There is a high unemployment rate, a small proportion working in the tertiary industry and some incidence of low income.
6 (5.1%)	Outside Ontario Low Income	These CSDs are found outside of the province of Ontario and have a high incidence of low income.
7 (4.1%)	Non- Metropolitan- Adjacent	These CSDs are non-metro-adjacent, meaning that these CSDs do not share a common boundary with a metropolitan CSD. Small proportions of the households in these CSDs are lone parent families and have an incidence of low income.

¹⁰ The Loadings are "Rotation Sums of Squared Loadings" from the Factor Analysis

The second factor represents those CSDs that have a high proportion of middle-aged commuters who own their homes. This factor explains 15.2% of the variance, and has a high positive association with the proportion of home owners (.898), those who commute to a different CSD for work (.561), and those who are middle-aged (.673). The component also has a high negative association with the proportion who rent their homes (-.850), CSDs with a high proportion of Aboriginal peoples (-.845), and the proportion of those working in tertiary industries (-.605). These CSDs have a negative association with husband and wife/common-law families (-.405), as well as, lone-parent families (-.435), indicating a low presence of children. These results imply that this type of CSD would attract middle-aged people who no longer have children living at home.

Furthermore, because there is a high positive association with home ownership, it would indicate that these communities will not have a high rate of turnover, therefore, those who live there, may do so for the rest of their days. Lastly, because of the economic climate, and age of these CSDs, it appears that these communities may be future retirement areas, and are presently 'bedroom communities' with several residents working outside of the CSD. Fewer migrants are attracted to these areas due to the lack of employment within the CSD, and families are repelled by the lack of other families and potential family services and activities.

The third factor explains 12.2% of the variance, and represents those CSDs with a high proportion living in Québec who are mother-tongue French speaking. The factor loads highly positive on the proportion who speak French as a mother-tongue (.834), a

high proportion living in Québec (.863), the proportion born in the province of residence (.507), and those living alone (.470). The factor also loaded negatively high on the proportion of those who speak English as their mother-tongue (-.797). These outcomes hint that these are Québec CSDs that have low in-migration due to language. Since many of the migrants tend to speak English as a mother-tongue, rather than French, few are moving to these communities because of the inability to communicate. Moreover, because there is a high association with the proportion born in the province of residence, this implies that of those who do migrate, high percentages are from Québec and are French speaking mother-tongue.

The fourth factor represents CSDs with a high proportion of young working families, and explains 9.1% of the variance. The factor loads high on the proportion of husband and wife / common-law families with children at home (.721), young individuals aged 25 to 44 (.646), and median household income (.416). The factor also has a very high negative association with the proportion of people 65 years and over (-.918). Therefore, this CSD type is not an aging one. Perhaps the elderly who once lived in these CSDs have now moved to more urban areas where they are able to be cared for and have better access to services, particularly for their special needs. This also indicates that the older migrants who are moving for retirement purposes are not choosing these types of communities, resulting in areas with low in-migration. This may be due to the type of climate and lack of services within these areas.

The fifth factor explains 8.5% of the variance, and represents low formal education, and low income CSDs. This factor loads high on CSDs with a high proportion of people with less than a grade nine education (.707), a high proportion of incidence of low income (.459), a high proportion of dwellings in need of repair (.419), and a high unemployment rate (.400). The factor also has a high negative association with the proportion of university educated (-.759), and the participation rate (-.441). These CSDs represent areas that are poorer and have fewer resources. It is apparent that these areas experience low in-migration due to the lack of economic prosperity and employment opportunities.

The sixth factor represents those communities that are outside of Ontario, and are those with low income. This factor explains 5.1% of the variance, and has a high negative association with the proportion CSDs in Ontario (-.792), and a relatively high proportion of CSDs with a high incidence of low income (.418). This indicates that these types of CSDs are found outside of Ontario, and are areas with a higher level of low income. Few migrants are choosing to move to these types of communities because of the lack of potential income. Moreover, the factor also has a positive association with the proportion of CSDs found in the Atlantic (.397), which may indicate that these CSDs have a hard time attracting migrants because of the employment conditions within this region.

Lastly, the seventh factor explains 4.1% of the variance. This factor has a high negative association with CSDs that are metropolitan-adjacent, and a relatively high positive association with lone-parent families. What this suggests is that these CSDs are rather remote, and therefore, experience low levels of in-migration. This could indicate

these areas are also losing population, such that migrants move from more remote to less remote communities. Additionally, because of the distance from cities, there may be the potential for a sense of isolation which also may be a deterrent for in-migrants, as well as little in terms of employment opportunities.

Therefore, CSDs with low levels of in-migration are found in Atlantic Canada, as well as, in mother-tongue French speaking areas of Québec. They are also CSDs with a high proportion of middle-aged commuters, young working families, or CSDs with low socio-economic status. These CSDs also tend to be found further away from the larger urban centres. What this suggests is that CSDs with low levels of in-migration may be isolated CSDs, with depressed economies. They may also be 'bedroom community' CSDs with little to offer in terms of employment opportunities, unless residents are willing to commute to a different CSD for work. Furthermore, CSDs outside of Ontario with low income levels also tended to be low in-migration.

Low in-migrations CSDs in some cases appear to be similar to high in-migration CSDs. In looking at both of the factor analyses, I found that some of the factors that have emerged appear within both the high and the low in-migration CSDs. In the high in-migration areas, French / Québec appears as the first factor, yet this factor is also important in the low in-migration CSDs, (factor three for the low in-migration areas). This suggests that mother-tongue French speaking CSDs in Québec include both high and low in-migration areas. Yet, the proportion that are bilingual seem to distinguish high and low in-migration, where high in-migration areas are high proportions who speak both French and

English. Therefore, it appears that CSDs that are bilingual may be more approachable to migrants than single language communities.

Other factors that appear in both of the analyses are associated with young working families (factor two in the high in-migration areas and factor four in low in-migration areas), middle-aged commuters (factor four in high in-migration areas and factor two in low in-migration areas), and low social economic status (SES), representing lower median household incomes, lower levels of formal education, high unemployment rate, and high proportion of incidence of low income (factor seven in high in-migration areas and factor five in low in-migration areas). This indicates that both high and low in-migration CSDs have some of the same types of people living in them and may push and pull migrants for the same reasons. It is however, other factors that were not tested here that may act as the true determinants of migration, including social ties, climate, and availability of services. Furthermore, it may also indicate that it is the combination of several variables that allow these types of CSDs to be similar. What will be interesting will be to explore the differences between the high and low in-migration CSDs through the use of a discriminant analysis technique.

On the other hand, some factors appear in only one of the data sets. For example, among high in-migration areas, primary industry CSDs (factor three), Western region CSDs (factor six), and Northern Aboriginal CSDs (factor five) are more likely to appear. I have speculated that this may be due to possible 'return to the land' movement in primary industry areas, while employment opportunities may be key to the migration out the West.

High in-migration into the North could be a function of high turnover rates due to the employment structure within this region, or return migration of the Aboriginal peoples. For the low in-migration areas, factor one representing CSDs in the Atlantic regions working in tertiary industries, factor six representing poorer areas outside of Ontario, and factor seven illustrating the non-metropolitan-adjacent CSDs are uniquely defined. This suggests that there is regional variation in terms of levels of in-migration. The low level of in-migration may be due to the lack of employment opportunities in the Atlantic, the depressed economy of certain areas, and the isolation felt being far away from a city. It is important to now find out the differences between high and low in-migration CSDs. By conducting discriminant analysis for the CSDs that experience high and low in-migration areas I can determine the factors that most differentiate the two groups. This will be carried out within the next section.

4.3 Discriminant Analysis

Discriminant analysis allows researchers to identify characteristics that distinguish between two groups. It reduces the total number of variables included in the analysis to those that differentiate the groups (Tatsuoka, 1970:5). This method is used to “build a predictive model of group membership” that produces a discriminant function that is based on linear combinations of the predictor variable, providing the best discrimination or differentiation between the two groups.

TABLE 9 Discriminant Analysis Table

Standardized Canonical Discriminant Function Coefficients

	Function
	1
% husband and wife/common-law families with kids at home	-0.562
% primary industry	-0.387
% born in province of residence	-0.323
% less than grade 9 education	-0.290
% population aged 45-64	-0.223
Prairie (MB, SK and AB)	0.758
Québec	0.731
Ontario	0.666
West (BC)	0.472
% who work in different CSD	0.306
North (YK and NWT)	0.255
% English MT	0.213
% population aged 25-44	0.206
% of dwellings rented	0.170
Dummy Metropolitan-Adjacent	0.142

Functions at Group Centroids

	Function
CSD Migration Levels	1
Low	-1.344
High	.743

Unstandardized canonical discriminant functions evaluated at group means

For the discriminant analysis in this study, I used the same variables as were included in the factor analysis. Table 9 provides the results. The Wilks' Lambda¹¹ was .499, and the Canonical Correlation¹² was .708. The function centroids were -1.344 for

¹¹ Wilks' Lambda is a multivariate test of significance. Lambda ranges between 0 and 1, where values close to 0 indicate that the group means are different and values close to 1 indicate that the group means are similar, with 1 indicating that all means are the same (SPSS, 1999).

¹² The Canonical Correlation for a discriminant function is the square root of the ratio of the between-groups sum of squares to the total sum of squares. Squared, it is the proportion of the total variability explained by differences between groups (SPSS, 1999).

CSDs with low levels of in-migration, and .746 for the CSDs with high levels of in-migration. This means that coefficients with high negative values are associated with low levels of in-migration, while those with high positive values are associated with high levels of in-migration.

The coefficients in Table 9 indicate that CSDs with high levels of in-migration are most distinguished from those with low levels of in-migration by virtue of their location (Prairies (.758), Québec (.731), Ontario (.666), British Columbia (.472), and in the North (.255)). A high proportion of commuters (.306), of mother-tongue English (.213), young, working age adults (.206), rented dwellings (.170), and adjacency to metropolitan areas (.142).

Since high in-migration communities have a high percentage of renters and several are found in the Northern regions, this suggests that some of the CSDs with high levels of in-migration also have a high turnover in their population. Furthermore, due to the high number of commuters, it would appear that many of the workers may commute to the adjacent metropolitan areas. These findings are consistent with much of the literature that suggests that it is the young and the English who move (Liaw, 1988a, 1988b), typically for employment purposes, and once in the CSD, decide to rent their dwellings (Clark, 1986, Rossi, 1955). The high in-migration CSDs differ from the low in that the high in-migration areas are typically found to be near metropolitan areas. This is also in line with the literature which suggests that areas closest to cities will experience in-migration from

urban residents (Beshiri and Bollman, 2001, Edmondson, 1997, Fellegi, 1996), in addition to those who are moving from more remote rural areas to less remote locations.

The coefficients also indicate that CSDs with low levels of in-migration are most differentiated from those with high levels of in-migration by their high proportion of husband/wife and common-law families with children at home (.562), primary industry workers (.387), residents who were born in the province (.323), who have less than a grade nine education (.290), and high proportion of middle-aged people between the ages of 45 and 64 (.223). This suggests that low in-migration areas are different from high in-migration areas in that they are family-oriented, with a low level of formal education, and a high number of employees in the primary sectors. Furthermore, the residents of the low in-migration communities tend to be born in the province, and are also in the middle stage of their life cycle, being between the ages of 45 and 64.

This is somewhat consistent with the literature in that the lower the level of formal education, the less migration, as well as the fact that primary industry communities tend to have a hard time attracting a new population (Edmondson, 1997). As for the families and the middle-aged group, these could represent couples who have adult children living at home with them. This trend of adult children living with their parents has become an important phenomenon in both rural and urban areas of Canada. These children in rural areas could represent those who have decided to take over the family farm, and therefore, are still living at home. On the other hand, they could also represent those youths who have left rural, only to return at a later time, at which point they decide to move back into

their parents home. In the past few decades, more and more young adults in Canada have tended to remain in, or return to, their parents home. The 2001 census showed that 41% of the 3.8 million young adults, aged 20 to 29, in Canada, lived with their parents. This is a 27% increase since 1981 (Statistics Canada, 2002).

In summary, CSDs that are located in the West or North have a high proportion of commuters, renters, young people, and those with English as a mother-tongue are more likely to experience high levels of in-migration. CSDs that have a high proportion of husband and wife/common-law families with children, are primary industry based, have a high proportion of those with less than a grade 9 education, were born in the province, and have a middle aged population are more likely to experience low levels of in-migration. CSDs with husband and wife/common-law families with children would be expected to have low in-migration since few young, single people would move to a family-oriented CSD. Likewise, older individuals looking for a place to retire would not be attracted to a CSD that was child or family-oriented. The various regions that were included in the discriminant analysis all appeared to experience high levels of in-migration.

One can construct plausible arguments for those CSDs experiencing the highest levels of in-migration as well. The decreasing cost of commuting would make it possible for young adults to move to rural areas. High levels of home renting would be an expected consequence of their mobile and financial status. The data also suggest that those regions with a high proportion of English are more likely to reflect these conditions.

It may also be that people with English as their mother-tongue are more likely to move to such areas.

Therefore, the elements that most differentiate high in-migration CSDs from low in-migration CSDs are family structure, location, language, and housing. High in-migration CSDs tend to have young populations without children, while low in-migration CSDs have older populations with children. Location of the CSD also has an impact on whether or not the CSD is a high or low in-migration area. Those CSDs that are in the Atlantic region, and that are non-metropolitan adjacent tend to be low in-migration CSDs, yet those that are high on in-migration are scattered across the country. In addition, CSDs with a high proportion of people with English as their mother-tongue experience high levels of in-migration. Housing for high in-migration CSDs tends to be rented homes, indicating the possibility of future mobility, and high levels of population turnover.

By looking at both the factor analysis and the discriminant analysis, some interesting patterns emerge. First, in the factor analysis I found that four of the factors are present in both groups of high and low in-migration CSDs. However, four unique factors emerge for high in-migration CSDs: they are more likely to have primary industries, are Northern Aboriginal CSDs, Western CSDs, and are metropolitan-adjacent. Most of these results were supported by the findings in the discriminant analysis. Yet, primary industry communities tend to be low in-migration CSDs. The discriminant analysis functions differentiate CSDs with a high proportion of young working commuters (high in-migration) from husband/wife or common-law families with children (low). The former

are also more likely to have higher proportions of people with English as their mother-tongue.

As for the low in-migration communities, the factor analysis differed from the high in-migration CSDs in three factors. Factor one represents CSDs found in the Atlantic region with a high proportion working in tertiary industries, and factor six represents CSDs that are outside Ontario with a high incidence of low income, and factor seven includes remote areas with some lone-parent families, and incidence of low income. This was supported again by the discriminant analysis which shows that CSDs experiencing the least amount of in-migration are CSDs with middle-aged families with children at home, and residents with lower levels of formal education. The residents of the CSDs also tend to work in primary industries, and the residents are more likely to be born in the province of residence. Therefore, CSDs that experience the least amount of in-migration have a high proportion of families, a lower level of formal education, and primary industry employment, with the residents likely born in the province.

Therefore, to answer the question 'what are the characteristics of the Canadian rural CSDs with high and low levels of in-migration between 1991 and 1996?', results have revealed that CSDs with low levels of in-migration tend to be areas with families who have children at home, areas with lower levels of formal education, middle-aged communities, a high proportion of residents who were born in the province, and primary industry type work. On the other hand, CSDs with high levels of in-migration are sprinkled across the country and are not found to be in one particular region or province

of Canada. Furthermore, CSDs with the greatest levels of in-migration have a high proportion of commuters, of mother-tongue English speakers, of young adults (aged 25-44), of renters, and are CSDs found closest to metropolitan areas. This suggests that high in-migration CSDs in Canada in 1996 had a young working population, who rented their homes, and who may have been travelling into the adjacent metropolitan areas for their jobs.

Chapter 5 - Conclusion

5.1 Conclusion

One of the most significant results of this research is that migration into rural communities is a complicated process. Not only is the decision to migrate one that involves various motivations and intentions, but migrants also have their own sets of characteristics that permit or hinder their potential for mobility. Therefore, the question 'what are the characteristics of rural communities with high and low levels of in-migration between 1991 and 1996?', is one that is not easily answered, but rather allows for several responses.

Some of the patterns that this research has shown are that areas attracting the highest proportion of in-migrants tend to be near metropolitan areas, allowing for some to commute to the city for work. The residents of these types of communities tend to be young, working aged adults, who in many cases rent their homes. These types of high in-migration communities are not found clustered within one province or region, but are instead scattered throughout the country. Yet, from the regional analysis it appeared that British Columbia and the North experienced the greatest proportions of high in-migration, while the Atlantic region experience the highest levels of low in-migration. Those communities with the least amount of in-migration tend to have an overall lower level of formal education and are communities that have a tendency to provide employment within the primary sector. These communities consist of a high proportion of residents

who were born in the province, who are between the ages of 45 and 64, and many who have their children living at home with them.

The results show some of the differences between high and low in-migration areas. Yet within the factor analysis, I found that several of the CSD characteristics for high in-migration CSDs are similar to those of low in-migration CSDs. For example, in Québec there are communities with both high and low in-migration, with the demographic characteristics of each consisting of mother-tongue French speaking, residents who were born within the province of Québec, and a high proportion that live alone. Therefore, it may be variables that were not included in the analysis that may differentiate these types of communities, including climate, services, and activities.

Within this particular research project, I have been unable to conduct research at the individual level, and therefore, was not able to investigate certain questions. The data that was readily available for this study consisted of community level information only. Nonetheless, from these findings at the CSD level, I am provided with some insight into the characteristics of the individuals within these communities, and am given some significant pointers for future research.

Although this research sheds some light on the CSDs that experience the highest levels of in-migration, it does not allow for definitive answers regarding who the migrants are. I have speculated that those who are moving to rural are doing so in order to find a better home, a better job, and a better quality of life. Yet, by looking at the characteristics of the CSDs I cannot categorically say that the types of people that are living in these

areas are the same types as those moving in. In fact, I would expect that this would not be the case in some of the rural communities in Canada. For example, some rural areas, made up of blue-collar workers who have lived in the community all their lives are different from the white-collar in-migrants from urban areas, who have greater resources such as better incomes and higher levels of formal education. The new resident and the long-time locals may also have differing opinions on how they community can and should be developed.

Therefore, the question that I asked was 'what are the characteristics of the Canadian rural CSDs with high and low levels of in-migration between 1991 and 1996?'. yet perhaps a better question would have been 'who are the migrants moving into rural communities?' which would have allowed for a better portrait of the changes in the communities and the reasons behind the transformations. It is also important to keep in mind that the types of communities that emerged from this study reflect only those variables that have been included in the analysis, and therefore, are by no means exhaustive.

The research has revealed the importance of jobs and the economy in the migration process, as well as, local commitments and constraints to migration. In terms of the economy and access to employment, the importance of commuting emerges as a key factor for high in-migration communities, as well as, its distance to a metropolitan area. Furthermore, by understanding the importance of employment as a pull factor, I am given a hint as to why there is high in-migration in communities in the West. The West

was booming economically during this period, resulting in a large influx of migrants who were hoping to benefit from the opportunities available.

Secondly, by understanding local commitments of the residents such as those who own their homes and are tied to a CSD for that reasons, as well as, those who are working in agriculture and are tied to the land, I am able to appreciate why some communities experience low levels of in-migration, in addition to an anticipated low level of out-migration. With little diversity in the local economy in a primary industry CSD, there may be few employment opportunities, and therefore, few in-migrants. The constraints of migration also play an important role in the decision to migrate and the choice of destination. The issues of poverty, low income, and single-parenting all play a role in the decision-making process and limit the possible destinations for some migrants. Furthermore, communities that have low income and poverty are expected to attract other low income migrants.

In terms of using the high, average, and low levels of in-migration, future work may benefit from using a different cut-offs. I chose to break the CSDs into three equal groups, yet there are various other methods that could have been adopted, including looking only at the top and bottom quartiles, or exploring only the extreme cases and comparing the top and bottom 5 percent of CSDs. This would allow for a more detailed look at the differences between CSDs with high and low levels of in-migration.

For future research I would suggest using an individual database or collecting data at the individual level. This type of data would help to clarify many of the ideas that have emerged from the CSD level analysis. Furthermore, individual data would allow the researcher to explore the reasons for the move in greater detail, in addition to investigating the rationale behind the choice of destination.

It would also be interesting to look at the migration patterns within each of the regions, or province and territories of Canada, rather than at the national level. This would allow for regional variations to emerge and hints as to why certain parts of the country attract certain individuals. I chose to collapse the provinces into regions, which allows for some of the detail to be lost. For example, the Prairies represents Manitoba, Saskatchewan, and Alberta, yet the differences in their levels of in-migration vary greatly, where 69.3% of Alberta's CSDs experience high levels of in-migration, as compared to 29.9% of the CSDs in Saskatchewan and 30.6% of CSDs in Manitoba experience high levels of in-migration. In the province by level of in-migration analysis, Saskatchewan appeared to be more similar to the Atlantic regions, and each of the provincial parts, in terms of CSDs with low levels of in-migration, while Alberta had a high proportion of high in-migration CSDs. Therefore the national norms used in the analysis, have implications on the regional data, as the provinces have been summed and the result is an average for the three provinces found in the Prairies.

The migration variable could also be disaggregated and individuals who move inter-provincially and intra-provincial, could be examined separately from those who are recent immigrants to Canada. This would be particularly interesting for policy-makers, as the issue of encouraging immigrants to move to areas that are in need of population is currently of interest. The Honorable Denis Coderre, Minister of Citizenship and Immigration, has recently been discussing the regionalization of immigration and the challenge of encouraging immigrants to settle in other regions of Canada, other than major cities, in order to allow all parts of the country to benefit from immigration (CIC: 2003).

In addition to looking at the pull factors associated with in-migration, an examination of the push factors, those issues that deter residents from remaining in or moving to a community would also be important to look at. The approach would be slightly different from this study in that the researcher would need to interview individuals who have left certain communities, in order to probe for the reasons behind their decision to move out. Furthermore, asking community members who are still living in the community about whether they too would like to leave and if so, what would be the reasons behind that. Especially when considering those residents who may want to leave, yet are tied to the community for various reasons, such as owning a home and being unable to sell it. This would allow for some insight into the deterrents to in-migration and may be useful information for communities that are trying to attract a new population.

Another interesting angle would have been to look at the migration differences by different levels of rurality. For example, 'what are the levels of in-migration for communities that are greatly influenced by metropolitan areas, as compared to those rural areas that are most remote and are not at all affected by a metropolitan area?'. Lastly, and what I feel would be most interesting would be a case study of a few of the high and low in-migration communities, looking at an origin and destination analysis and asking the questions, 'are these in-migrants from urban or rural areas?', 'what has been the greatest push and pull factors involved in their decision to move?', 'what has been the pattern of population turnover within these communities?', and 'how has this in-migration of residents affected their new CSD of residence?'. These are all questions that I hope to explore in the near future. By understanding the migration flows, as well as, the types of migrants moving in and out, it will allow for a better understanding of the changing community dynamics and the shifting nature of the community.

Lastly, it may be important for government policy-makers to look at the issues raised in the Malatest and Associates (2002) document. Although the study was focused on youth out and return migration, the issues of developing employment opportunities, social infrastructure, and providing a positive image of rural areas would all appear to be ways in which rural areas could attract various types and ages of in-migrants. In asking the questions, 'why do you want to leave?', 'why did you leave?', and 'why have you returned?', policy-makers and community developers can learn a lot about what they can do to improve their communities. It therefore would be interesting to use this framework

and to interview various age groups. Furthermore, it would also be important to include individuals who are from an urban background, and ask them why they have chosen to move to rural. It would be interesting to see if their reasons for moving to rural are similar to the reasons given by the return migrants.

5.2 Policy Implications

In terms of policy implications raised by this research, I question the Canadian policies that force people to jobs rather than facilitating employment initiatives within regions where employment opportunities are sparse. This is an important issue particularly because in many of the low in-migration communities there is a high proportion of primary type industries with little economic diversification, in addition to specific constraints to migration such as language, location, family commitments, and poverty. Strategies that allow for the diversification of local economies and specialization of others are also important. These types of employment policies would not only allow for rural communities to sustain themselves, but could also attract a new larger population base, with the growth potentially allowing for the CSD to thrive.

A second issue is that the Canadian government should reconsider policies aimed at the provision of services. It appears that many rural communities could benefit from local development initiatives and the support of the government in doing so. This would allow for those communities that are struggling to maintain their populations to possibly become more attractive to future in-migrants. Furthermore, by reducing the amount and

types of services provided in a community as the population begins to decline, a practice sometimes seen in rural communities, the area is then bound for a sharp downturn. As a result, many jobs may be lost and the community would only continue to deteriorate, as poverty emerges and the community begins to dwindle. This will have implications on the types of households in low in-migration CSDs, as they may have low income, low employment rates, and in turn the community would have less pull factors drawing new migrants into the community. Therefore, residents may be forced to develop their human capital in order to sustain themselves, or leave their communities in search of a better quality of life. Furthermore, some residents in these types of communities may then be tied to their communities because they own their homes and are unable to sell them in such a difficult housing market.

By developing the human capital within rural areas and allowing for local economic development strategies that are not only successful in the local arena, but all the CSD to sustain themselves in the global market, would allow for many of the rural communities to endure. Provision for childcare is another important issue for lone-parent families, and would allow parents would be able to work and participate within their communities. Social services for the elderly, in particular, is and will continue to emerge as a significant issue in rural areas, as the Canadian population continues to age, and retirees continue to move to rural. Lastly, rural communities cannot depend on the provincial and federal governments to care for them, and therefore, need to develop, and strengthen their local governments, in addition to developing and using the voluntary

organizations that are available to them. Not only will this allow for greater local control over community issues, but it will also allow for an effective and resilient community to be formed. With a strong base at the community level, the bottom-up approach to development will be much more successful.

Migration is but one aspect in a host of variables affecting rural communities. Rural communities vary, as do their levels of in-migration. Although migration has been found to be a complex process, it is important to continue to research and explore both its process and affect on communities, as the outcomes of migration will greatly impact the sustainability of each of the communities involved.

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Appendix A
Alternative Definitions of Rural

Definition	Main Criteria, Thresholds and Building Blocks
Census "Rural Areas"	<p>Population Size: Population living <i>outside</i> places of 1,000 people or more: <i>OR</i> Population Density: Population living <i>outside</i> places with densities of 400 or more people per square kilometre Building Blocks: EAs</p>
<p>"Rural and Small Town" (RST)</p> <p>Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ)</p>	<p>Labour Market Context: Population living <i>outside</i> the main commuting zone of larger urban centres (of 10,000 or more). [Specifically, RST refers to the non-CMA/CA population, where a CMA is a census metropolitan area and a CA is a census agglomeration. A CMA has an urban core population of 100,000 and over (and a CA has an urban core population of 10,000 to 99,999) and CMAs and CAs include all neighbouring municipalities where 50 percent or more of the workforce commutes to the urban core].</p> <p>Labour Market Context: MIZ disaggregates the RST population into four sub-groups based on the size of commuting flows to any larger urban centre (of 10,000 or more)</p> <p>Building Blocks: CSDs (for RST and MIZ)</p>
OECD "Rural Communities"	<p>Population Density: Population in communities with densities less than 150 people per square kilometre. Building Blocks: CDs</p>
OECD "Predominantly Rural Regions"	<p>Settlement Context: Population in regions where more than 50 percent of the people live in an OECD "rural community". Building Blocks: CDs</p>

Appendix A (continued)
Alternative Definitions of Rural

<p>“Non-Metropolitan Regions” (Beale Code Approach)</p>	<p>Settlement Context: Population living outside of regions with major urban settlements of 50,000 or more people. Non-metropolitan regions are subdivided into three groups based on settlement type and a fourth based on location in the North. The groups based on settlement type are further divided into “metropolitan adjacent” and “not adjacent” categories.</p> <p>Population Size: Non-metropolitan regions include urban settlements with populations of less than 50,000 people and regions with no urban settlements (where “urban settlements” are defined as places with populations of 2,500 or more).</p> <p>Building Blocks: CDs</p>
<p>“Rural” Postal Codes</p>	<p>Rural Route Delivery Area: Areas services by rural route delivery form a post office or postal station. “0” in second position of a postal code denotes a “rural” postal code (also referred to as “rural” forward sortation area (“rural” FSA)). In 1996, there were 1,467 FSAs in Canada of which 192 were rural FSAs.</p> <p>Building Blocks: Canada Post Geography.</p>

Source: “*Definitions of Rural*” by du Plessis, Beshiri, Bollman and Clemenson, in the Rural and Small Town Canada Analysis Bulletin (Nov. 2001: 7)

Appendix B Variables Included in Analyses

Census Variables 1996
Focus Variable
Migration Levels For CSDs For A Five Year Period (1991-1996)
(1) Communities That Have Had Low In-Migration
(2) Average Level Of In-Migration
(3) Communities With High Levels Of In-Migration
Other Variables Considered
% Persons Living Alone
% Persons Who Commute To Work
% Persons Who Work At Home
% Persons Who Are Self-Employed
% Persons Working In Primary Industry
% Persons Working In Tertiary Industry
% Persons With Less Than A Grade 9 Education
% Persons With University Degree
% Persons Born In The Province Of Residence
% Incidence Of Low Income
% Lone-Parent Families
% Husband/Wife & common-law Families With Children At Home
% Who Own Their Homes
% Who Rent Their Homes
% Aged 25-44 Years
% Aged 45-64
% Aged 65 and Over
Median Household Income \$
Participation Rate
Unemployment Rate
% Mother-Tongue English
% Mother-Tongue French
% Bilingual
Atlantic Provinces
Québec Province
Ontario Province
Prairie Provinces
Western Provinces
Northern Territories
Communities That Are Metro-Adjacent
Dwelling in Need of Major Repair
% Aboriginal – Single Ethnic Group

Appendix C High In-migration CSDs

	Québec / French	Young Working Families	Work at Home / Primary Sector	Middle-Aged Commuters	Northern / Aboriginal	Western Region	Low Socio-Economic Status	Metropolitan Adjacent
% persons living alone	0.576	-0.231	-0.366	-0.367	0.230	0.180	-0.054	0.026
% who work in different CSD	0.339	0.059	0.036	0.690	-0.154	-0.136	0.001	0.153
% who work at home	-0.029	-0.060	0.876	0.028	0.077	-0.071	-0.003	0.058
% of workers self-employed	-0.053	-0.294	0.786	0.067	0.018	0.045	-0.123	0.032
% primary industries	-0.124	0.199	0.798	-0.182	-0.024	0.046	0.291	-0.069
% tertiary industries	-0.087	-0.217	-0.563	-0.073	0.195	-0.253	-0.454	-0.019
% < grade 9 education	0.444	-0.464	0.056	-0.163	0.147	-0.363	0.426	-0.111
% pop with university education	-0.052	0.121	-0.091	-0.136	-0.003	0.337	-0.719	0.190
% born in province of residence	0.464	-0.155	0.065	0.262	-0.078	-0.622	0.171	-0.024
Incidence of low income %	0.232	-0.370	-0.089	-0.191	-0.273	0.199	0.439	0.189
% of lone-parent families	0.080	-0.038	-0.565	-0.254	0.211	0.132	0.248	0.041
% hwi/common-law with kids at home	0.010	0.802	-0.014	-0.111	0.120	-0.259	0.185	-0.028
% of dwellings owned	0.011	-0.152	0.481	0.642	-0.335	-0.068	0.046	0.011
% dwellings in need of repair	-0.006	0.150	-0.493	-0.659	0.221	0.074	-0.053	-0.004
% pop aged 25-44	0.158	0.861	-0.193	-0.133	0.070	0.111	-0.028	0.061
% pop aged 45-64	0.333	-0.392	0.221	0.624	0.016	0.308	-0.106	0.041
% pop aged 65+	-0.164	-0.890	0.004	-0.085	-0.160	-0.135	-0.026	-0.018
Dummy Metropolitan-Adjacent	0.012	-0.041	0.018	0.089	-0.093	-0.138	-0.055	0.894
% of dwellings needing major repairs	0.142	0.036	0.173	0.071	0.666	0.106	0.339	0.159
Median household income \$	-0.185	0.717	-0.067	0.142	-0.086	0.099	-0.275	-0.173
Participation rate	-0.154	0.844	0.171	-0.142	0.062	0.085	-0.236	0.012
Unemployment rate	0.266	-0.186	-0.204	0.148	0.319	0.264	0.493	0.098
% English MT	-0.933	0.026	0.017	0.038	-0.065	0.157	-0.121	0.020
% French MT	0.951	0.025	-0.040	0.074	-0.048	-0.115	0.107	-0.006
% speaking English and French	0.607	0.089	-0.113	0.236	-0.088	-0.003	0.039	0.123
Quebec	0.941	-0.003	0.013	0.052	-0.026	-0.064	0.039	-0.031
Ontario	-0.334	0.044	-0.194	0.682	-0.002	-0.227	0.090	0.037
Prairie (MB, SK and AB)	-0.354	-0.128	0.238	-0.608	-0.199	-0.393	-0.079	0.128
West (BC)	-0.171	0.044	0.026	-0.051	-0.060	0.854	0.017	-0.178
North (YK and NWT)	-0.051	0.137	-0.106	-0.109	0.803	-0.048	-0.168	-0.133
% aboriginal single ethnic group	-0.124	0.137	-0.199	-0.304	0.766	-0.082	-0.003	-0.129

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 10 iterations.

Appendix D Low In-migration CSDs

	Atlantic / Tertiary	Middle-Aged Commuters	Québec / French	Young Working Families	Low Socio-Economic Status	Outside Ontario / Low Income	Non-Metropolitan Adjacent
% persons living alone	0.640	-0.216	0.470	-0.149	0.186	0.179	0.227
% who work in different CSD	0.288	0.561	-0.019	0.218	0.103	-0.169	-0.237
% who work at home	-0.892	0.195	-0.182	-0.045	-0.040	0.111	-0.004
% of workers self-employed	-0.883	0.208	-0.141	-0.108	-0.109	0.012	-0.049
% primary industry	-0.878	0.270	-0.185	0.047	-0.011	0.151	0.004
% tertiary industries	0.585	-0.605	-0.070	-0.093	-0.044	-0.129	0.106
% < grade 9 education	0.196	-0.295	0.230	-0.024	0.707	0.172	0.023
% with university education	0.002	-0.010	-0.338	-0.124	-0.759	0.258	-0.055
% born in province of residence	0.065	0.369	0.507	-0.064	0.036	0.284	0.165
Incidence of low income %	0.073	0.014	-0.110	0.019	0.459	0.418	0.367
% of lone-parent families	0.421	-0.435	0.075	0.134	0.186	0.232	0.428
% hw / cl with kids at home	0.114	-0.405	0.070	0.721	0.089	0.100	-0.041
% of dwellings owned	-0.198	0.898	-0.148	-0.106	-0.082	0.042	-0.063
% dwellings in need of repair	0.234	-0.850	0.202	0.045	0.016	-0.035	0.083
% pop aged 25-44	0.465	0.223	0.291	0.646	-0.155	0.018	0.001
% pop aged 45-64	-0.215	0.673	0.147	-0.293	-0.111	-0.005	0.157
% pop aged 65+	0.063	0.168	-0.041	-0.918	0.052	0.031	-0.056
Dummy Metropolitan-Adjacent	-0.071	0.072	0.038	-0.018	-0.069	0.138	-0.778
Median household income \$	-0.087	-0.035	0.059	0.416	-0.674	-0.294	0.029
Participation rate	-0.719	0.171	-0.088	0.327	-0.441	-0.060	-0.066
Unemployment rate	0.610	-0.030	-0.072	0.279	0.400	0.254	0.219
% English MT	-0.271	0.236	-0.797	-0.171	-0.193	-0.037	0.122
% French MT	0.392	0.158	0.834	0.107	0.056	0.048	-0.079
% speaking English and French	0.538	0.243	0.382	0.087	-0.105	0.030	-0.038
Atlantic	0.582	0.286	-0.462	0.199	0.013	0.397	-0.030
Quebec	0.168	-0.120	0.863	0.044	0.069	-0.019	0.004
Ontario	0.176	0.035	-0.164	-0.027	-0.129	-0.792	0.159
Prairie (MB, SK and AB)	-0.805	-0.015	-0.318	-0.259	-0.051	0.110	-0.025
% of dwellings needing repairs	0.067	-0.223	-0.329	0.345	0.419	0.149	0.155
% aboriginal single ethnic group	-0.010	-0.845	-0.190	0.278	0.247	0.013	0.030

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 15 iterations.