

IV INVENTORY OF NATIONAL APPROACHES TO RURAL DEVELOPMENT STATISTICS

IV.1 Introduction

The need for a new set of statistics or for more detailed information on a specific area generally arises from a shift in policy focus. Rural development statistics are no exception. Over recent years, rural development has become an important policy issue in most countries. Rural areas have suffered employment and population losses. With gains in productivity, fewer and fewer people were necessary to cultivate the land and rear animals. In many rural areas, the number of jobs lost in the agricultural industry has exceeded the number of jobs created in other industries, which led many rural residents to leave the countryside and look for jobs in the towns. Migration from the country into the towns gave rise to new economic and social problems both in urban and rural areas. Creating a rural environment that attracts people and businesses helps to solve problems in rural areas and helps to slow down or stop the continuing urbanization of most countries.

In developed countries, the problems in rural areas are increasingly not directly related to agriculture. Especially in countries where agriculture only accounts for a small percentage of both production and employment in rural areas, the main focus of rural policy has started to move away from agriculture towards targeting the wider rural economy and population. On the other hand, in most of the countries in the Commonwealth of Independent States (CIS) and developing countries, rural development has emerged as a distinctive field of policy, practice and research, resulting from a general disenchantment with previous approaches to development planning at national and sectoral levels. This new approach is defined by its concern with equity objectives of various kinds, in the sense that it focuses particularly on poverty and inequality. The term 'rural development' refers to a distinct approach which is at once broader and more specific than 'agricultural development'. It is broader because it entails much more than the development of agricultural production for it is, in fact, a distinct approach to the development of the economy as a whole (Harriss, 1982). The policy issues and their instruments, and hence the indicators for their monitoring, may therefore differ considerably between developed countries, on the one hand, and CIS and developing countries, on the other. This is important to note when discussing an international core set of indicators to monitor rural development.

This shift in policy focus has been recognized in some countries in the name of the departments/ministries. Examples are the Department of Environment, Food and Rural Affairs in the United Kingdom, the Ministry of Agriculture, Rural Development and Fisheries in Portugal, the Ministry of Agriculture and Rural Development in Israel and the Ministry of Agriculture and Regional Development in Hungary. In other countries, the issues of rural development have been added to the responsibility of the ministry that deals with agricultural policy without a change in name. For example, the United States Department of Agriculture covers rural development issues. Alternatively, rural development can come under the responsibility of ministries without a link to agriculture, such as the Ministry of the Interior and Health in Denmark or the Ministry of Industry, Employment and Communication in Sweden or Ministries dedicated to dealing with regional issues such as the Ministry for Regional Development and Regional Authorities in the Czech Republic.

In recent years, international organizations have also taken up work in the area of rural development and its related statistics. Eurostat has recently set up a rural development statistics unit within the directorate that also covers agricultural, food and environmental statistics. In the OECD, rural development statistics are covered by the Territorial Indicators Group. Within the FAO, rural development falls mainly within the

responsibility of the Sustainable Development Section. However, within the FAO, work on rural development statistics has been carried out at least since the World Conference on Agrarian Reform and Rural Development in 1979. Ten year later, the FAO published “Guidelines on Socio-Economic Indicators for Monitoring and Evaluating Agrarian Reform and Rural Development” which, as the title suggests, deals with both agricultural and rural indicators (FAO, 1988).

Regardless of where the responsibilities lie, it has been widely recognized that in developed countries rural development statistics need to look far beyond core agriculture. Rural development statistics have to cover not only the wider economic conditions in rural areas but also social and environmental conditions (see for example Hill, 2002). Getting this wider coverage of rural development statistics right is one of the challenges for statisticians working on the creation of a system of rural development statistics.

IV.2 Inventory of national rural development statistics

In the spring of 2003, the UNECE started a project aimed at establishing an inventory on rural development statistics in Member Countries of the UNECE and OECD. After initial research on the Internet, a questionnaire was sent out to 12 countries (Canada, Czech Republic, Denmark, France, Germany, Hungary, Ireland, Italy, Romania, Sweden, United Kingdom and the United States). A summary of the replies of 11 of these countries was presented at the Meeting on Food and Agricultural Statistics, which was held in Geneva in July 2003.

At this meeting, participants pointed out that rural development statistics should be seen in the larger framework of regional/territorial statistics as demand for statistics on small geographic areas increases. The demand is not limited to rural areas. A system based on statistics for small geographic areas should be built-up which would be flexible and accommodate different definitions and different classifications.

During the discussion, a requirement to better understand policy needs emerged. Rural development statistics provide the evidence-base for rural development policy and therefore policy needs should be at the centre of statisticians’ preoccupations. It was mentioned that with the decoupling of subsidies it is likely that there will be more demand for rural development statistics. It is clear that rural development is much broader than agriculture and that a statistical approach needs to cut across traditional statistical categories of which agriculture is one. The possibility was raised that agricultural statisticians could coordinate rural development statistics, building on their knowledge of agricultural statistics.

Participants also discussed the usefulness of a standard definition of rural. It was noted that it might be difficult and/or not appropriate to have a standard definition due to the differences between countries. Others expressed the need for some kind of standard, pointing out that differences within countries can be larger than those between similar areas of different countries and that demand for internationally comparable data is increasing. There was general agreement, though, that more work needs to be done on an international level both on the definition of rural and on rural development indicators.

As a result, the UNECE sent a questionnaire to all countries that participated in the meeting. Replies were received from 26 countries. The aim of the questionnaire was to establish which organizations are responsible for rural development policy and rural development statistics, what the aims of the rural development policies are as well as how rural is defined and what kind of statistics are available at present. The question of which specific indicators could be used to satisfy the need for internationally comparable

rural development statistics has not yet been addressed by the UNECE project. However, both the OECD and Eurostat have carried out work in this area (see for example OECD, 1994 and Hay, 2002).¹

The results of three sections of the questionnaire survey are presented here: the definition of rural, the availability of rural development and related statistics and rural development policy. Annex 3 gives a more detailed summary of the replies by individual countries to the 15 questions in the questionnaire.

IV.3 The definition of rural

For statisticians working on rural development statistics, one of the first questions to ask is ‘what exactly is rural?’ This might seem a trivial question at first but it turns out to be anything but easy to define. The responses to the UNECE questionnaire showed that there is a **large variety of definitions**. In several countries more than one definition is used. In these countries, the policy issue to be addressed determines which definition is used. The differences, both within countries and between countries, relate not only to the different variables used to distinguish rural from non-rural but also to different thresholds and basic statistical units.

There are two main definition types. One is based on variables applied to **administrative areas** such as municipalities or larger areas (such as, for example, ‘Kreise’ in Germany or counties in the United States). The second type is a settlement-based definition, which looks at built-up areas/urban land use irrespective of **administrative boundaries**. The first type is more commonly used than the second.

Both these basic types of definitions then use specific variables to distinguish rural from non-rural areas. For a detailed summary of the definition of rural the reader is referred to Annex 3, questions 2 to 5.

Most definitions in use are a **combination of two or more variables** such as population level and population density or commuting intensity. The variables ‘population level’ and ‘population density’ are used most frequently. **The way these variables are used to define rural areas differ greatly**. In Denmark and the Czech Republic, the number of inhabitants of an administrative area is used on its own. In Germany, the definition is based on the population level of urban centres and the population density of the area surrounding urban centres. In the United States, one definition looks at the population level of urban centres and commuting patterns of the areas surrounding the urban centre. In Switzerland, population level, commuting pattern, population growth rates, built-up area, population/job density and employment in the primary sector are used to delimit agglomerations and isolated towns. All areas outside agglomerations and isolated towns are then considered to be rural. These are but a few examples of how population level and population density are used in definitions of rural areas. Very few countries do not refer to either population level or population density in the definition of rural. One of these exceptions is Romania. In Romania, the ‘rural’ status for a settlement is established by law without explicitly taking into account the demographic size or the population density. Similarly, in Kyrgyzstan, the parliament decides on the status of every settlement.

Even when similar variables are used to distinguish rural from non-rural, the **thresholds applied can be very different**. For the population level of municipalities, for example, this threshold ranges from 200 (in Denmark) to 2,500 (in Estonia). Several definitions look at the size of urban centres within a certain administrative area (for example, in Germany the threshold is an urban centre of 100,000 inhabitants within a region and in Bulgaria a municipality is only rural if the biggest town has less than 30,000 inhabitants). These examples also show that often rural is defined as the residual of urban.

¹ As concerns inventories of rural indicators in EU countries, see also Bryden (2001).

The third element of the definition is the territorial unit on which the definition is based. Most **countries use existing administrative areas as the basic territorial unit**. Several countries, however, use statistical subdivisions that are mainly based on the organization of the population censuses (for example, Australia, Canada and Ireland). In Denmark and Sweden, the definitions are based on addresses. These definitions have the advantage of being independent of relatively random administrative borders and of providing a flexible basis for summary statistics. This approach is possible in countries like Sweden and Denmark with a wide range of register based statistics. In many countries, however, statistics at such a low level would require large resources. Rural markers would have to be added to sample surveys and the results would probably have to be compiled in two different ways - once in the traditional way to derive statistics for administrative areas and once to derive statistics on rural areas. For some statistics, such as those based on administrative records, this might not be possible.

The next question that was addressed was whether there is a need for a definition that distinguishes **degrees of rurality**. The responses to the questionnaire seem to suggest that there is a need for such a subdivision as more than half of the countries with an official definition of rural use some kind of subdivision of rural areas. The variables used to define degrees of rurality do not necessarily have to be the same as for the rural non-rural definition. For example, the rural/non-rural definition could be based on population level, whereas the subdivision could be based on the distance to an urban centre of a certain size.

IV.4 Current availability of rural development and related statistics

In many countries more than one organization collects and produces statistics on rural development, reflecting the cross-cutting issues related to rural development. Therefore, it will be not as straightforward as in some other areas to compile an inventory of available statistics and indicators. However, in all countries, some, but not necessarily the main, **responsibility** lies with the national statistical office. In countries that are based on a federal principal the regional statistical offices also play an important role in the collection of rural development statistics (for example, Australia, Canada, Germany and the Russian Federation). Frequently, ministries also share the responsibility for statistics on rural development.

The replies to the question of whether there is a core/standard set of indicators to monitor rural development showed that **several countries are in the process of developing or are investigating the need for a set of indicators** to monitor rural development. In several countries, sets of indicators exist that are directly linked to the monitoring of the EU Special Accession Programme for Agriculture and Rural Development (SAPARD) and the EU Rural Development Plan. As these programmes are closely linked to agriculture, the indicators are likely to be also closely linked to the part of rural development more closely associated to the agricultural community. One example of a set of indicators for rural development not linked to agricultural policy is the Finnish Rural Indicators project. A list with all the indicators in the Finnish Rural Indicators set can be found in Annex 3.

The questionnaire also revealed that at present the information on rural development available on the **Internet** is fairly limited. Several countries indicated that no rural development statistics are at present available on the Internet. In many other cases some regional and/or rural data are available on different sites. Very few countries have information on a dedicated site.

Questions 10 to 12 focused on small area statistics. Again the questions are summarized in Annex 3. The answers show that in the majority of countries the **smallest areas for which statistics are currently available** are municipalities, which often correspond to the EU NUTS 5 areas. Nine countries produce statistics for smaller areas. These smaller areas are usually some subdivision related to the organization or presentation of data on the population census. The reason for including these questions was to get some idea

of the feasibility of basing an international standard for the definition of 'rural' on territorial units not linked to administrative areas and/or those smaller than a municipality/village. The answers seem to suggest that a definition based on areas that do not correspond to administrative areas would require many countries to produce two sets of statistics - one for the administrative areas for which statistics are currently required and another one for different territorial units which are not based on the current territorial units.

Finally, the questionnaire also asked for the **percentage of the population** living in rural areas and the **percentage of land** that is classified as rural, the most basic rural indicators. The results are presented in Table IV.1.

These figures are based on the national definitions of 'rural' and therefore the **comparability** is very limited. At the moment, these data are used for international comparisons (for example, in the World Urbanization Prospects published by the Population Division of the Department of Economic and Social Affairs of the UN) as they are the only ones available. The OECD has developed a definition based on population density and statistics for OECD countries are available based on this definition.

Looking at the data available for Canada, England and the United States, which all have two or more commonly used definitions, it can be seen that the different definition can have sizeable effects on the indicators. For England, the population living in rural areas is either 20% or 28% depending on the definition used. The land in rural areas is 87% or 93%. For the United States, the difference between the two definitions is larger for the land area than for the population. In Canada the rural population varies between 22% and 38% depending on the definition used. It can be seen that the different types of definitions can have a large impact on both the population classed as living in rural areas and the land area covered. In addition, the overlap between the definitions is smaller than might be assumed from looking at these figures. Not all of the 20% of the population classed as rural in the English urban settlement definition are also included in the 28% classed as rural according to the administrative area definition.

Another point worth mentioning is the low figure for land in rural areas in Germany. The reason for this comparatively low figure is that the smallest geographic unit used in the classification is a 'Kreis', an administrative area consisting of several municipalities. All other countries in this sample base their definition on smaller geographic units. Generally, the smaller the basic geographic unit used in the classification, the higher the percentage of land classified as rural.

Due to the lack of comparability of the data, it is difficult to draw any other conclusions from the data presented in the table. The same will be true for every indicator of rural development - whether economic, social or environmental. The impact the definition of rural has on rural indicators in Canada are shown in a research paper by du Plessis *et al.*, 2002. It would be interesting to carry out similar research on an international level using different national definitions. This would show, for example, whether the differences in the rural population can be attributed mainly to differences in the definition or mainly due to actual physical differences in the various countries.

IV.5 Rural development policy

Even though it is connected to agricultural policy and often emerges from it, rural development has a much wider scope. While agriculture plays a part in rural development, in many countries this is small and declining. Hence, rural development policy does not necessarily need to fall within the **responsibility** of the same organization as agricultural policy. In different countries, rural development is under the responsibility of different ministries/departments.

In most countries the ministry responsible for agricultural policy is also the major player (for example, Bulgaria, Estonia, Finland, France, Hungary, Kazakhstan and Slovakia) or one of the principal players (for example, Australia, Lithuania, Netherlands and Romania) in rural development policy. In other countries, the main responsibility for rural areas falls within the scope of other ministries such as the Ministry of Industry, Employment and Communication in Sweden, the Department of Community, Rural and Gaeltacht Affairs in Ireland, the Ministry for the Interior and Health in Denmark and the Ministry for Regional Development and Regional Authorities in the Czech Republic. In several countries regional governments play a major role in developing and implementing rural development policies (for example, Australia, Germany, Italy, Netherlands and the Russian Federation).

The UNECE questionnaire also included questions about the **objectives and major themes** of rural development policy. The replies show that the focus of rural development varies considerably between countries. In Canada for example, the aim is to improve the well-being of rural citizens. In the United States, the emphasis is on the improvement of the quality of life in rural areas. In most EU member and acceding countries, rural development is much more closely linked to agricultural policy as rural development falls within the second pillar of the Common Agricultural Policy. For acceding countries, rural development and agricultural policy aims are set out in EU SAPARD initiative. In order to decide on the scope and the focus of rural development statistics, it is important to understand the aims of rural development policy. The focus will be different depending on whether policy is mainly addressed at the agricultural community level or more generally at the rural community level.

In order to determine what general topic areas should be covered by rural development statistics, a question was included about what the main themes and objectives of rural development policy should be. The answers generally fall within the following main areas:

- Economic/employment;
- Service provision/Infrastructure;
- Environment;
- Social; and
- Preservation or renewal of rural communities and tradition.

The importance attributed to agriculture differs greatly between countries, ranging from being a main focus to only playing a minor part.

Table IV.1
Rural population and rural land

	What is the percentage of the population that are classified to live in rural areas?	What is the percentage of the total land area that is classified as rural?
Australia	12.84 per cent	99.74 per cent
Bulgaria	41.9 per cent (11.2 per cent in less developed rural areas)	83.7 per cent
Canada	22 to 38 per cent depending on the definition used	99.8 per cent 'rural' and 95 per cent 'predominantly rural' (OECD definition)
Czech Republic	26.5 per cent	73.7 per cent
Estonia	32.6 per cent	98.4 per cent
Finland	43 per cent (27 per cent excluding urban adjacent rural areas)	95 per cent (83 per cent if urban adjacent rural areas)
France	24 per cent	82 per cent
Germany	13.03 per cent	30.35 per cent
Hungary	Narrow definition: 47.35 per cent; broader definition: predominantly rural 31.3 per cent and significantly rural	Narrow definition: 88.3 per cent; broader definition: predominantly rural 58.3 per cent and significantly rural 37.7 per cent
Ireland	n/a	n/a
Italy	n/a	n/a
Kyrgyzstan	65 per cent	28.8 (53.9) per cent of the land is agricultural land and land of rural settlements (about 90 per cent of the territory lays higher than 1,500m above sea level).
Latvia	47.5 per cent	98.2 per cent
Lithuania	33.1 per cent	97 per cent
Netherlands	n/a	n/a
Norway	22.3 per cent (population not living in urban settlements)	99.3 per cent (land outside urban settlements)
Romania	45.4 per cent	89 per cent
Russian Federation	27 per cent	n/a
Slovakia	29.9 per cent (OECD definition at NUTS 4 48 per cent in predominantly rural areas)	76.7 per cent (OECD definition 59.5 per cent in predominantly rural areas)
Sweden	35 to 40 per cent	more than 95 per cent
Switzerland	32 per cent	77 per cent (approximately)
Turkey	35.1 per cent	n/a
United Kingdom	n/a	n/a
England	20 per cent (settlement based definition); 28 per cent (ward based definition)	93 per cent (settlement based definition); 87 per cent (ward based definition)
Scotland	30.9 per cent 1)	n/a
Wales	32 per cent	82 per cent
Northern Ireland	n/a	n/a
United States	21 per cent (Census Bureau definition); 20 per cent (ERS definition)	97 per cent (Census Bureau definition); 80.8 per cent (ERS definition)

1) <http://www.gro-scotland.gov.uk/grosweb/grosweb.nsf/pages/scosett#res>.

Source: UNECE rural questionnaire.

IV.6 Next steps

Further discussion is needed on the usefulness of an **international standard** for the definition of rural. Many countries are at present considering, or already working on, an official definition of 'rural' and on putting together a set of indicators to monitor and evaluate rural development policy. International cooperation and benchmarking would seem useful for countries currently considering these issues on a national basis. Similar problems and issues are likely to arise in different countries. The solutions might not be the same for all countries but information on what has been done in other countries and on international standards, recommendations or guidelines will help them make informed decisions.

As the demand for internationally comparable information rises, some kind of standard both for the definition of rural and for a set of indicators is desirable. In an increasingly globalized world, policymakers, researchers and the general public are not only interested in statistics showing what is going on in their country but also statistics on how their country compares to others such as neighbouring countries or countries with similar environmental, climate, social or political conditions.

IV.7 Case study: Canada

IV.7.1 Introduction

This section will review case studies of rural developments statistics compiled by countries. The intention is that as this Handbook is updated, additional country statistics showing good practise will be added. For the time being, there is only one case study. However, this is quite extensive, reviewing the rural statistical system in Canada. In many respects the rural statistical system in Canada is very advanced and lends itself to detailed analysis of policy issues related to various types of rural areas *vis-à-vis* both urban areas and the country as a whole. Many of the results appear in the *Rural and Small Town Canada Analysis Bulletin* series, which is published by Statistics Canada (and available at the Statistics Canada website: www.statcan.ca/english/freepub/21-006-XIE/free.htm). After reviewing the definitions and typologies used by Statistics Canada, selected results extracted from this Bulletin will be presented. These give a good illustration of what is achievable given the availability of a well-developed statistical system based on stringent definitions related to well proven survey methods.

Only a small fraction of the statistics from the various issues of the *Rural and Small Town Canada Analysis Bulletin* is presented here.² For instance, the detailed statistics broken down by categories such as regions or genders, which are of prime importance for rural development statistics, are, for reason of space, only briefly mentioned here. Readers interested in these breakdowns should consult the original sources.

IV.7.2 Definitions and typologies [Vol. 4, No. 8]

Several alternative definitions of "rural" are used in Canada for national and provincial level policy analysis. The policy issue and the geographical focus being addressed (i.e. local, regional, national or international), leads an analyst to choose one definition over another. The definition chosen is of course also dependent on available data sources.

² References are made in the text to the various volumes and issues of this periodical without each time mentioning the name of the periodical.

There are six alternative ways of defining “rural” in Canada. Depending on the definition of rural being applied, between 22% and 38% of the Canadian population are defined as rural. Three definitions will be shown below.

Definition 1: For analysis of metropolitan versus non-metropolitan regions and their sub-categories

This definition is based on census divisions (CDs) as the “building block” for defining regional types. This typology is equivalent to the Beale Code typology developed by Calvin Beale at the USDA.

Metropolitan regions: 50,000 or more people living in urban settlements (where an urban settlement has a population of 2,500 or more inhabitants)

1. **Major metro (central):** CDs with urban settlements of one million or more (central).
2. **Major metro (fringe):** CDs with urban settlements of one million or more (fringe).
3. **Mid-sized metro:** CDs with urban settlements of 250,000 to 999,999 people.

Non-Metropolitan regions: (those with under 50,000 people living in urban settlements)

4. **Small city (metro-adjacent):** CDs with 20,000 to 49,999 living in urban settlements, adjacent to a metropolitan region.
5. **Small city (non-metro-adjacent):** CDs with 20,000 to 49,999 living in urban settlements, non-adjacent to a metropolitan region.
6. **Small town (metro-adjacent):** CDs with 2,500 to 19,999 living in urban settlements, adjacent to a metropolitan region.
7. **Small town (non-metro-adjacent):** CDs with 2,500 to 19,999 living in urban settlements, non-adjacent to a metropolitan region.
8. **Rural (metro-adjacent):** CDs with no people in urban settlements with 2,500 or more, adjacent to a metropolitan region.
9. **Rural (non-metro-adjacent):** CDs with no people in urban settlements with 2,500 or more, non-adjacent to a metropolitan region.
10. **Northern.**

Definition 2: The second typology concerns Rural and Small Town (RST) areas

This definition focuses on the population living outside the commuting zones of larger urban centres or more specifically outside so-called Census Metropolitan Areas (CMA) and Census Agglomerations (CA). The more precise definitions of these concepts are:

- **Rural and Small Town (RST) areas** have a population of 1 - 9,999 where less than 50% of the employed individuals commute to a CMA/CA and less than 25% commute from a CMA/CA.
- **Census Metropolitan Areas (CMA)** has an urban core of 100,000 or over and includes all neighbouring municipalities where over 50% of more of the labour force commutes into the urban core or more than 25% commute from a CMA/CA.
- **Census Agglomerations (CA)** has an urban core of between 10,000 and 99,999 and abides by the same commuting rule as CMAs.

Definition 3: The third definition is based on the OECD definition

The OECD definition distinguishes between:

- **Predominately urban** regions;
- **Intermediate** regions; and
- **Predominately rural** regions, sub-divided into:
 - Metro-adjacent;
 - Non-metro-adjacent; and
 - Northern regions.

The major data sources for the rural and urban statistics are census data and labour force surveys.

IV.7.3 Results

Below a compilation is presented showing a few examples of results that have been extracted from various issues of the *Rural and Small Town Canada Analysis Bulletin*. Tables and graphics are grouped together at the end of this chapter.

IV.7.3.1 Population issues**Migration to and from rural areas [Vol. 3, No. 6]**

Migration is a concern for RST areas of Canada as rural development is essentially a demographic phenomenon. In terms of net migration, RST areas were net losers of youth (under 25 years of age) but net gainers of individuals in all age classes from 25 to 69 years of age. Thus, RST areas appeared competitive in attracting migrants in all age classes from 25 to 69 years of age.

Patterns of migration into and out of rural and small town Canada were similar to the patterns reported in the United States. In the 1970s, there was a turnaround of the long-standing pattern of rural net outmigration. This was due to both higher in-migration and lower outmigration. In the 1980s, we also saw the turnaround of the turnaround where the pattern of rural net outmigration returned, caused by lower in-migration. In the early 1990s, there was a return to the pattern of the 1970s, namely, rural NET in-migration, but this time due solely to higher RST retention (lower outmigration).

Young adults were the most mobile during the study period. Those aged 20-24 had the highest rates of RST outmigration while those aged 25-29 had the highest rates of RST in-migration. In terms of net migration, RST areas were net losers of youth but net gainers of individuals aged 25-69. RST areas were therefore competitive in attracting migrants of all age classes from 25 to 69 years of age.

Rural youth migration [Vol. 2, No. 3]

By comparing the population structure for RST areas in 1996 to the overall Canadian population structure, one sees that the RST population has a smaller proportion of individuals who are 20 to 24 and 25 to 29 years of age. Is this due to migration? Will these individuals return to RST areas?

How many young adults should we expect to find in RST areas? To investigate this, this Bulletin calculated an expected 1996 population pyramid using the 1971 population structure (adjusted for expected deaths) and then compared this to the actual 1996 population pyramid. A 25-year period was used to allow

the youth to leave for education and to return to a rural area. All provinces lost youth from their rural areas between 1971 and 1996. There was a (net) exodus over this time period.

Population structure and change [Vol. 2, No. 2]

In 1981, 33.6% of Canadians lived in predominantly rural regions. By 1996, this share had fallen to 31.4%. However, within predominantly rural regions, rural metro-adjacent regions are growing the fastest. These regions represent one half of the population in predominantly rural regions. Net migration is strongest towards rural metro-adjacent regions.

The rural population continues to concentrate in regions near cities. Between 1981 and 1996, the predominantly rural population increased in absolute terms by almost 11% (see Figure IV.7.1). Most of this increase occurred in rural metro-adjacent regions, which increased by almost 17%. The next largest rural population increase was 7% in the rural northern regions. Rural non-metro-adjacent regions had the smallest gains in population. These results compare with the predominantly urban and intermediate regions which had higher growth rates of approximately 22% each.

Rural and small town population is growing in the 1990s [Vol. 1, No. 1]

Overall, Canada's RST population has grown in each intercensal period since 1976. However, the share of Canada's population living in rural and small town areas has declined from 34% in 1976 to 22% in 1996. There are two reasons for this. First, population growth has been higher in larger urban centres. Second, some rural areas are reclassified into "larger urban centres" in each census – both because commuting patterns change which causes the rural community to be classified within the commuting zone of the "larger urban centre" or the rural community grows past the threshold of 10,000 persons in the urban core. In this Bulletin, the 5-year growth rates were calculated within constant boundaries but, invariably, each 5-year period started with fewer rural people due to this reclassification.

Rural and small town growth rates vary widely among the provinces. Much of the growth within rural and small town areas is in the small towns. Sub-provincial data show wide regional differences within each province.

Immigrants [Vol.5, No. 4]

Few immigrants reside in predominantly rural regions. In 2001, 28% of the population in predominantly urban regions was made up of immigrants (i.e. residents born outside Canada). The corresponding share for predominantly rural regions was only 6%. For Canada as a whole, immigrants had the same proportion with high school degree as the total population. In rural regions, on the other hand, immigrants were markedly more educated than the Canadian-born.

Immigrants in rural Canada – preference for urban regions [Vol.4, No. 2]

Immigrants tend to prefer urban regions. In 1996, 17% of Canada's total population were immigrants and 88% of them lived in urban regions. There they made up 27% of the population compared with only 6% of the population in the predominantly rural regions. Another interesting result is that, within predominantly rural regions, immigrants had a higher level of educational compared with the Canadian-born.

Within predominantly rural regions, immigrants who arrived before 1981 had a higher employment rate and higher incomes than the Canadian-born population. Those immigrants who arrive after 1981 had the opposite result.

IV.7.3.2 Employment and labour force issues

Seasonal variation in rural employment [Vol. 3, No. 8]

Within each industrial sector (except agriculture), the RST workforce exhibited a higher amplitude of seasonality than the workforce in larger urban centres (LUCs), over the 1996 to 2000 period.

After accounting for the national average amplitude of seasonality and after accounting for the intensity of rural employment in highly seasonal sectors (such as “primary sector other than agriculture” and “construction”), we calculated that 39% of the employment seasonality in RST areas is due to the unique aspects of working in those areas. Higher rural seasonality may be due to the fact that RST industries, such as processing and transportation, have stronger links to primary commodity flows.

Employment structure up to 2000 [Vol. 3, No. 4]

Between 1987 and 1994 RST employment grew almost 6% while LUC employment grew nearly 8%. This growth in RST areas was fairly steady with the exception of 1990-1991 when there was an overall decline in employment due to the economic recession. Between 1996 and 2000, while both the labour force participation rate and the employment rate in RST areas remained lower than in LUCs, growth was similar in both regions at just over 5% (Table IV.7.1).

The unemployment rates for RST areas and LUCs declined between 1996 and 2000, but the rate of reduction was slightly less in RST areas.

RST areas had lower labour force participation rates than LUCs for both youth and the general population (see Figure IV.7.2). However, up until 1999 the respective gaps closed. Between 1999 and 2000 the rate for youth and the general population declined in RST areas but continued a steady rise in LUCs.

While there was a general rising trend in the employment rates for the same population groups throughout, there was a large percentage difference between lower rates in RST areas and higher rates in LUCs. There was also a contrast between youth and the general population for each area, with youth having lower employment rates.

There was a smaller discrepancy in unemployment rates between RST areas and LUCs for the two populations than was evident in either the labour force participation or the employment rates. However, both youth and the general population exhibited a steeper decline in the unemployment rate in LUCs (see Figure IV.7.2). There was a marked difference in rates between youth and the general population in both areas, with youth averaging more than 5 percentage points higher than the respective general population.

When examining male and female youth in RST areas and LUCs the following results were obtained. Females had a lower rate of labour force participation than males. The male rates showed little difference between RST areas and LUCs, but the female rates were lower in RST areas. The male rates showed little difference between RST areas and LUCs, but the female rates exhibited a large discrepancy. Female RST labour force participation averaged 5 percentage points below that in LUCs.

Males in both RST areas and LUCs, and females in LUCs, had similar employment rates. However, females in RST areas had lower rates, averaging approximately 5 percentage points below the other groups.

While all the unemployment rates are high (averaging nearly 15%), after 1997 there was a downward trend for all the groups. This decline was steepest for male youth in LUCs. In both RST areas and LUCs, female youth had lower unemployment rates than the respective male population.

At the Canada level, it was seen that both the labour force participation rate and the employment rate in the RST areas were consistently below that of the LUCs. However, the RST areas were matching the LUCs in terms of the increase in employment rates over the five years. Both the RST areas and the LUCs had declining unemployment rates but the reduction was slightly less in the RST areas.

RST and LUC employment patterns of youth and the general population, split between males and females, were also examined. It was found that RST areas had lower labour force participation rates and employment rates and higher unemployment rates. However, the discrepancy with LUCs was relatively smaller for unemployment rates. Youth exhibited lower labour force participation and employment rates and higher unemployment rates than the general population. The variance between youth and the general population was particularly apparent in the unemployment rates with youth averaging 5 percentage points higher. For both youth and the general population the unemployment rate was declining faster in LUCs.

Looking specifically at male and female youth in RST areas and LUCs, females had generally lower labour force participation rates. This is particularly marked in RST areas. A similar pattern is seen in employment rates, with RST females having markedly lower rates than the other groups. However, the LUC female rate was closer to the male employment rates than was apparent in the labour force participation rate. Interestingly, although female youth had relatively less attachment to the labour force (i.e. lower employment rates and lower labour force participation rates), female youth (in both RST areas and LUCs) had lower unemployment rates than either male group.

Employment structure [Vol. 2, No. 6]

In Canada in 1996, residents of predominantly rural regions contributed about 29% of total employment. This share has been essentially constant since 1981. Among the types of rural regions, rural metro-adjacent regions contribute 15%, rural non-metro-adjacent regions contribute 12% and rural northern regions contribute 2%. All these shares remained essentially constant over the 1981 to 1996 period.

Looking specifically at the 1991 to 1996 period, the rate of employment growth in each type of rural region was higher than the employment growth in predominantly urban and intermediate regions. Within predominantly rural regions, rural metro-adjacent regions showed the strongest rate of employment growth in each intercensal period - however, some of the employment growth of these regions is due to an increasing number of residents commuting to jobs in urban centres.

Other results:

- The retail and wholesale trade sector is the biggest sector for employment in RST Canada and ranks as one of the top two sectors in each province.
- Manufacturing is also a top sector for employment in RST Canada.
- Only regions which are adjacent to major metropolitan centres reported employment growth above the Canadian average in each five year period since 1981.
- One half of the regions that reported below average employment growth for three consecutive periods were rural regions not adjacent to a metropolitan centre. The lack of access to a metropolitan centre appears to constrain employment growth.

Employment structure in the primary sector [Vol. 2, No. 7]

Today, less than 3% of the workforce has an agricultural occupation and less than 3% of the population live on a census farm. Furthermore, employment in rural metro-adjacent regions and in rural non-metro-adjacent regions remains 2.5 times more intensive in the agriculture industry, compared to the national average. This level of relative intensity has remained essentially the same over the 1981 to 1996 period because, within each type of region, employment grew or declined at essentially the same rate.

Agricultural employment showed modest growth in the 1981 to 1986 period in each type of region. Growth continued in the predominantly urban regions in the 1986 to 1991 period, due in part to continuing growth in demand for nursery and greenhouse products in the vicinity of cities. However, all types of regions experienced a decline in agricultural employment in the 1991 to 1996 period. This decline is driven, in general, by the on going substitution of machinery for labour in agricultural production. Since rural metro-adjacent regions and rural non-metro-adjacent regions are the most agricultural intensive in terms of employment, this across the board decline in the level of employment was felt most strongly in these rural regions.

Employment structure in the manufacturing sector [Vol. 2, No. 8]

Historically, manufacturing activity in Canada has been concentrated in larger cities. However, during the 1980s and 1990s, predominantly rural regions were relatively more intensive in “traditional” manufacturing relative to the overall economy. Each type of predominantly rural region appears 10% to 40% more intensive in traditional manufacturing than Canada as a whole. This relative intensity in traditional manufacturing constrained rural employment growth throughout the 1980s - because each type of region experienced a decline in traditional manufacturing employment from 1981 to 1986 and from 1986 to 1991. Employment levels essentially stabilised in the 1991 to 1996 (post recession) period. There were small gains in some regions and small losses in other regions.

In the 1981 to 1996 period, predominantly rural regions were relatively less intensive in complex manufacturing employment, with an intensity 60% to 70% of that of the country as a whole. During the 1980s, the intensity for predominantly rural complex manufacturing increased because its employment declined at a slower pace than the fall in urban complex manufacturing employment. In the 1991 to 1996 period, each type of predominantly rural region reported gains in employment in complex manufacturing whereas predominantly urban and intermediate regions showed only small changes.

Employment patterns in the non-metro workforce [Vol. 1, No. 2]

The growth and decline of non-metro employment varied according to provincial economic activities. For all provinces, except the Prairie provinces, non-metro unemployment rates were generally higher than metro unemployment rates.

Non-metro unemployment rates were less sensitive to economic fluctuations. In a recession, the rise in the unemployment rate was slower in non-metro areas. In economic expansions, the fall in the non-metro unemployment rate was slower.

Employment rates (employment/population ratios) were lower in non-metro labour markets. Generally, the following employment tendencies were observed:

- Leading into recessions, non-metro employment grew less rapidly than metro employment;
- During recessions, employment declined less in non-metro areas than in metro centres;

- During economic recoveries, employment growth was higher in non-metro areas than in metro centres;
- During economic expansions, metro employment growth overtook non-metro employment growth.

Self-employment activity [Vol.5, No. 5]

Rural self-employment workers represented 37% of all self-employed workers in Canada in 2001 compared to a population share of 27%. The self-employment activity rate of workers in rural areas outside the commuting range of larger urban centres was more than double the urban rate in 2001.³ However, the rural/urban differences in self-employment activity rates are much smaller when farming is excluded. Since the middle of 1990s, the number of rural workers engaged in non-farm self-employment has surpassed the number of farm self-employment workers.

Employment in agri-food industry by type of region [Vol.4.No.8]

Employment in agriculture and the agri-food industry remained at 15% of the total employment over the 1981-1996 period.⁴ While employment in agriculture has fallen, the agri-food industry has grown faster than the overall economy (Figure IV.7.3).

Employment in agri-food is more than three times the level of employment in agriculture. Primary agriculture saw a decline in employment between 1991 and 1996 while in agricultural services it has grown continuously since 1981. Most employment in the agri-food sector is in the food and beverage service sector and the wholesale/retail trade of agriculture and food products.

Predominantly rural areas are 30% more intensive in agriculture and agri-food employment than the Canadian average. In agriculture employment alone predominantly rural areas are 2.3 times as intensive as the Canadian average but the intensity has been declining over the years (see Figure IV.7.3).

Part-time employment in rural Canada [Vol.4, No. 1]

RST areas have a significantly higher incidence of part-time employment than LUCs (see Figure IV.7.4). In 1999, it amounted to 15.6 in the former areas and 12.8% in LUC. Following the recession in the early 1990s part-time employment increased in both types of areas. It is interesting to note the close correlation between the two series. The predominately rural areas rural provinces have the highest incidence of part-time employment in their rural areas.

In 1987-1997, the average annual growth in part-time employment was 0.1% in RST while it reached 4.6% in the LUC. As for full-time employment, the RST did even worse - it fell 1.1% per year against 2.4% growth in LUC. This picture changed radically in 1997-1999. Part-time employment surged

³ The self-employment activity rate is a wider concept than the self-employment rate because it includes also all employees earning unincorporated self-employment income outside their main job.

⁴ Agriculture includes primary agriculture and agricultural services. Agri-food includes food processing, agriculture and food products wholesale and retail trade (including equipment and inputs) and food and beverages services.

Employment, which actually should be understood as number of persons engaged, includes paid workers, self-employed workers and unpaid family workers.

Data are available for 1981, 1986, 1991 and 1996. Predominantly rural regions are further broken down into rural metro-adjacent regions, rural non-metro-adjacent regions and rural northern regions.

by 3.1% per year in RST whereas it fell 0.3% in LUC. Full-time employment increased by 3.1% per year in RST while it rose by 2.9% in LUC.

Occupational pattern [Vol.5, No. 6]

Predominantly rural regions have a higher concentration of unskilled occupations, within most industries, compared to predominantly urban regions (see Figure IV.7.5). Moreover, during the 1990s, predominantly rural regions tended to become more intensive in unskilled occupations within most industries.

IV.7.3.3 Income and expenditures

Rural – urban income divide [Vol.4, No. 4]

Between 1992 and 1999, territorial income disparity in Canada increased. However, between-province income disparity decreased while within-province disparity increased substantially. The average provincial income is less relevant in explaining the increasing spatial disparity. Disparities between various (OECD) types of regions became more important. Although the changes are not dramatic the geography of income disparities is shifting slowly but steadily from a provincial to a rural - urban divide.

Rural and urban household expenditure patterns for 1996 [Vol. 1, No. 4]

Main conclusions are that:

- Rural and urban households spend the same share of their budget on the necessities of food, clothing and shelter but rural households spend more on food and less on shelter.
- Distance influences rural household expenditure patterns. Rural households spend a higher share on transportation and a lower share on some services (e.g. cablevision, Internet), which are more difficult to access.

In 1996, the total expenditure of an average Canadian household was \$49,054. Rural households spent an average of \$42,620 while urban households had an average spending of \$50,283.

In 1996, rural households spent 13% of their total budgets on food, while urban households spent 12% (see Table IV.7.2). This difference could be attributed to the fact that the average household size is moderately larger in rural areas (2.75 persons) than in urban areas (2.58 persons).

Both rural and urban households spent about the same share of their total budgets on clothing in 1996 (4.3%).

In 1996, households in rural areas spent an average of \$6,705 on shelter (16% of their household budgets), while urban households spent an average of \$8,800 (17%). A larger proportion of rural households owned their homes (82%) than urban households (64%). In addition, a larger share of rural homeowners (56%) has no mortgage payments compared to urban homeowners (45%).

Rural households spent an average of \$6,328 on transportation in 1996, 15% of their total expenditure, while urban households spent \$5,990, just 12% of their total expenditure.

Access to recreation services may be more limited in rural areas. In 1996, only 85% of rural households reported spending on recreation services, compared to 94% of urban households. On average,

rural households spent \$547 on recreation services, while urban households spent \$1,033. Rural households spent, on average, \$29 going to the movies compared to \$63 for urban households. Compared to urban households, rural households spent more on tobacco (the average across all rural households was \$619 and the average across all urban households was \$512).

Measuring income and well-being [Vol. 2, No. 5]

Incomes are lower in rural areas. For the past three decades, rural families have had the lowest average incomes and the most urban areas (100,000 or more) have had the highest incomes.

In 1997, the average income for families living in rural areas was \$48,850 while in areas with a population of 100,000 or more, the average family income was \$59,920 (in constant 1996 dollars).

The income gap between rural areas and smaller urban centres has been falling the most, when we compare rural incomes to the incomes in each urbanization class. Since 1990, the average income gap between rural areas and cities under 15,000 population fell by 58%. Even against the 100,000 and over urbanization class, the rural urban income gap has fallen by 20%. By 1997, the average income for a rural family was only \$359 below that of a family living in an urban area with a population less than 30,000.

Through the 1990s, within each community size, the proportion of families with low income has not fluctuated significantly. The proportion of families with income below the LICO⁵ is lower in rural areas. For families living in rural areas, the proportion with low-income remained at slightly below 10% while for those living in areas with a population of 500,000 and over, the rates ranged from 16% to 18%.

This is an indicator that rural communities are better off than urban communities in the sense that a lower proportion of their residents are restrained in the relative ability to purchase necessities.

Through the 1990s, like the low-income rates based on LICO, the incidence of low-income rate based on LIM have not fluctuated significantly within each community size.⁶ However, across different community sizes, LIM rates have exhibited the opposite pattern of LICO rates. Unlike LICO rates, LIM rates are highest for rural families while families in the most populous areas (500,000 and over) have the lowest proportion of families with income less than the LIM. LIM rates for families living in rural areas were approximately 15% while for those living in areas with a population of 500,000 and over, approximately 12% have incomes below LIM.

The average person in rural and small urban areas receives more social transfers per dollar of income and pays less tax per dollar of income than the average urban person. On average, rural and small urban area individuals tend to receive relatively more transfers because:

- Their unemployment rates are higher;
- There is a higher proportion of children (and thus residents receive more from the child tax credit); and
- There is a higher proportion of retired people who receive Canada and Quebec Pension Plan benefits.

⁵ LICO (Low-Income Cut-Offs) are established each year with an adjustment for family size and an adjustment for the urbanization class (see Cotton, 2001).

⁶ LIM (Low-Income Measure) equals one half of the national median income, adjusted for family size and urbanization class.

Rural income disparities [Vol. 3, No. 7]

Within each province, incomes in rural regions are lower than the incomes in urban regions. Provinces with above average urban incomes (e.g. Ontario, Alberta and British Columbia) also have above average incomes in their rural regions.

The share of the rural population with low-incomes has declined, relative to the share of urban population with low-incomes (due largely to an increase in the incidence of low-incomes in urban regions).

Thus, rural income disparities are decreasing within most provinces because the rural urban income gap is decreasing; and the incidence of low-incomes in rural regions is declining, relatively.

IV.7.3.4 Social issues**A rural-urban comparison of health indicators** [Vol.4.No.6]

A lower proportion of Canadians living in small town regions (non-metro-adjacent), rural regions and northern regions rated their health as “excellent,” compared to the national average (see Table IV.7.3).

Health risk factors that are more prevalent in the non-metropolitan region population included being overweight and smoking, (see Table IV.7.3). Arthritis/rheumatism was higher than the national average in rural (non-metro-adjacent) regions even after adjusting for age.

Health status and behaviours of Canada’s youth: a rural - urban comparison [Vol.5, No. 3]

Studies have indicated that the health status of Canadians living in the most rural and remote parts of Canada is lagging behind that of urban areas. To some degree this is a result of demographic differences. However, analysis of the health of well-being of youth (aged 12-17) points to the same result. While 33% of girls in major metro regions rated their health as excellent, only 17% of girls in rural regions and 15% in northern regions rated their health at this level. Some 23% of boys in northern regions rated their health as excellent compared to 36% in major metro regions.

Boys located in small town regions had the highest prevalence of being overweight and obese. Boys in small metro regions had the highest prevalence of heavy drinking. Girls and boys in the northern regions are generally more likely to smoke. Within each type of region, girls are more likely to be smokers than boys. Physical inactivity is generally the same among youth across metro and non-metro regions. Previous studies had shown that physical activity for the population as a whole was more likely in rural areas.

How far to the nearest physician? [Vol. 1, No. 5]

In 1993, there were only half as many physicians per 1,000 population in RST Canada as in larger urban centres. However, two thirds of RST Canadians lived within 5 km of a physician. About 7% lived more than 25 km from a physician. In northern remote communities, over two thirds of the population lived more than 100 km from a physician.

Housing conditions [Vol. 2, No. 4]

Households are considered to be “below standard” if their dwellings do not meet one or more of three predetermined standards. The three standards are the suitability, adequacy, and affordability norms:

- The **suitability** norm – a suitable dwelling has enough bedrooms for the size and make up of the occupying household.
- The **adequacy** norm – an adequate dwelling does not, according to its residents, require major repairs.
- The **affordability** norm – shelter costs must consume less than 30% of before tax household income.

In 1996, predominantly rural regions had the lowest proportion of households with housing below standards (31%). Within rural regions there was little variation in the proportion of households with housing below standard. Rural northern regions had the highest proportion (33%), while rural metro-adjacent and rural non-metro-adjacent areas had the lowest proportions (31%) below standard. In contrast, predominantly urban regions had the highest proportion of households that did not meet one (or more) of the three norms of suitability, adequacy or affordability (39%).

Similar patterns are seen provincially. Within each province, predominantly rural regions had a smaller proportion of households below standard than did urban regions.

Gender balance [Vol.4, No. 3]

Rural females were less active in the labour market compared to rural males and compared to urban females. They also had a lower share of full-time work. Economic and business conditions were one of the major reasons why females undertook part-time work, which was not the case for rural males who worked part-time. Rural females worked less paid and unpaid overtime than urban females.

Household Internet and computer use [Vol.5, No. 1], [Vol. 3, No. 5], [Vol. 1, No. 7]

In 1989, 19.4% of Canadians had a computer at home, which increased to 33.2% in 1994. In 1997, the share of Canadian households with computers was 36.4%. At the same time, within RST areas, the share of individuals with a computer at home increased from 13.9% in 1989 to 22.5% in 1994. Fewer RST individuals use a computer at work, compared to individuals in larger urban centres.

In 2000, a lower share of RST individuals lived in a household with a computer, compared to their urban counterparts. Approximately one half of RST residents (48% of RST rural residents and 51% of RST small town residents) responded that they had a computer in the home compared to CMA residents (62%) and CA residents (55%).

The trend towards the adoption of computers within households is continuing. Between 1989 and 2000, the share of households with a computer has approximately tripled – and this trend exists for rural and urban Canadians. Nevertheless, rural RST areas continue to have a lower share of households with computers. The gap between RST and CMAs in terms of the proportion of households with computers was 13 percentage points in 2000 – the same as in 1994. Thus, rural households are still “lagging” behind in terms of computer ownership – the more rural the area, the lower the share of households owning a computer.

Overall, household Internet connectivity is lower in RST households than in urban. In 2000, over 45% of individuals in CMAs lived in a household with an Internet connection, compared to 30% of individuals in RST rural areas. The rate of growth of the proportion of households with an Internet connection is similar in metropolitan and non-metropolitan households. All areas are increasing their rate of adoption of Internet access but metro areas are maintaining a higher Internet adoption rate.

The use of the Internet has been perceived as a crucial medium for residents in rural and remote areas to reduce the costs of distance. Analysis have shown that within each age class, for each level of educational level and within each income group, members of rural households were less likely to use the Internet compared to their urban counterparts. Canadian data show that rurality per se is still an independent constraint on Internet use. On the positive side, however, households outside the largest 15 metropolitan areas with children under 18 years of age are more likely to access the Internet compared to similar households within the largest 15 metropolitan areas.

IV.7.3.5 Business structures and economic growth issues

Economic diversification [Vol.4.No.7]

Rural non-metro-adjacent regions show the widest range in the level of economic diversification and specialization (measured by the Herfindahl Index of Concentration). However, within each type of region, diversification varies widely depending on its location within Canada.

The producer services sector [Vol.3, No. 1]

The producer services sector (finance & real estate and business services) is a growing sector. Although the employment in predominantly rural regions grew faster than in urban they still have a very low share of their employment in this sector. Predominantly urban regions are 20% more intensive in producer services compared to the national average while predominantly rural regions are only 60% as intensive.

The composition of business establishments in smaller and larger communities in Canada [Vol. 1, No. 3]

There was a large number of new business starts in both smaller and larger communities in the 1993 to 1996 period. Smaller communities have relatively more businesses and are more likely to have smaller businesses. Service industry businesses dominate in both smaller and larger communities.

Producer service businesses have a relatively lower presence in smaller communities while distributive services, personal services and social services are almost equally spread across smaller and larger communities.

In Canada, while smaller communities had a population share of 35%, their business share was 38%. This contrasts with larger communities, which had a population share of 65% and a business share of only 62%.

In Canada, small businesses (with 4 employees or less) made up the overwhelming majority of total businesses in both smaller and larger communities in 1996. However, small businesses were relatively more prevalent in smaller communities. In smaller communities, almost 65% of the businesses had one to four employees and 82% had fewer than 10 employees. This contrasts with larger communities where 56% of the business had one to four employees and 74% had fewer than 10 employees.

Factors associated with local economic growth [Vol. 1, No. 6]

The main conclusions are that:

- A higher education level in a community provided only a weak boost to employment growth during the 1980s.
- Communities that were relatively specialized in primary sector employment and traditional manufacturing employment were relatively disadvantaged in the 1980s.
- The type of region in which a community was located had a substantial impact on the rate of local economic growth. Communities in regions influenced by metropolitan centres benefited relative to other communities.
- A higher unemployment rate in a community in 1981 did not indicate an excess supply of labour that would attract employers. In fact, wage rates grew less in these communities and thus these communities fell further behind during the 1980s.
- Communities with a higher share of population with low-incomes experienced higher economic growth in the 1980s, relative to the average community. These communities were catching up to the average community during the 1980s.
- There was a wide variability in community growth patterns in the 1980s. Many communities achieved economic growth in spite of the factors identified here that constrained growth for the average community.

It should be noted that the correlation between measures of educational attainment in the community and measures of local economic growth is generally weak. A higher level of average years of schooling within a community was associated with a lower rate of growth of average hourly wage rates. Community aggregate earnings grew less in communities with a higher level of education because the lower growth in wages was not offset by the growth of employment and/or the growth of hours worked. Note however that communities with a higher than average number of years of schooling did report higher employment growth, compared to the average community.

Another measure of the community's human capacity was also considered - the share of the population with low educational attainment and the share with high educational attainment. The results indicate that both areas with a lower educational attainment and areas with higher education attainment were associated with a higher rate of growth of employment in the 1980s. Communities with low skilled workers (as indicated by a high share of individuals with a lower level of education) were able to attract jobs during the 1980s and were also able to increase their wage level during this period. Thus, communities with a higher share of population that had lower education levels had significant association with a higher growth in aggregate community earnings.

Studies in the United States (for example, Killian and Parker, 1991) found no significant association between community employment growth and community education levels, if the industrial structure of employment and the type of region were taken into account. In this study, we have controlled for the industrial structure of employment and the type of region and we do obtain a positive (albeit weak) association between employment growth and education levels. Thus, during the 1980s, Canadian communities, but not communities in the United States, appeared to benefit from high community education levels. Employment specialization in the primary sectors was associated with lower growth in all measures of community development outcomes. Community specialization in traditional manufacturing was significantly associated with lower employment growth and with lower growth in aggregate community earnings.

IV.7.3.6 Educational issues

Rural and urban educational attainment

Education has a crucial role to play in community development. A better educated labour force can improve the community's capacity to attract or generate economic opportunities and to translate those opportunities into higher-valued employment. However, in some cases rural areas provide limited job opportunities for skilled workers. Education therefore provides lower return on investment and consequently individuals have lower incentives to continue their schooling unless they plan to migrate out of the rural area.

In aggregate terms, predominately rural regions have followed the educational shifts that have taken place in the country as a whole. However, predominately rural regions have not closed the gap in the structure of educational attainment. Measurements for 1981 and 1996 showed that the gap in educational attainment between urban and rural regions persisted, (see Table IV.7.4 and Figure IV.7.6). In fact the gap in average years of schooling has tended to widen. It should be noted, however, that part of the observed spatial differences is due to the economic and demographic differences among regions. Another important observation is that there are large variations within each type of region.

IV.7.3.7 Territorial issues

Urban consumption of agriculture land

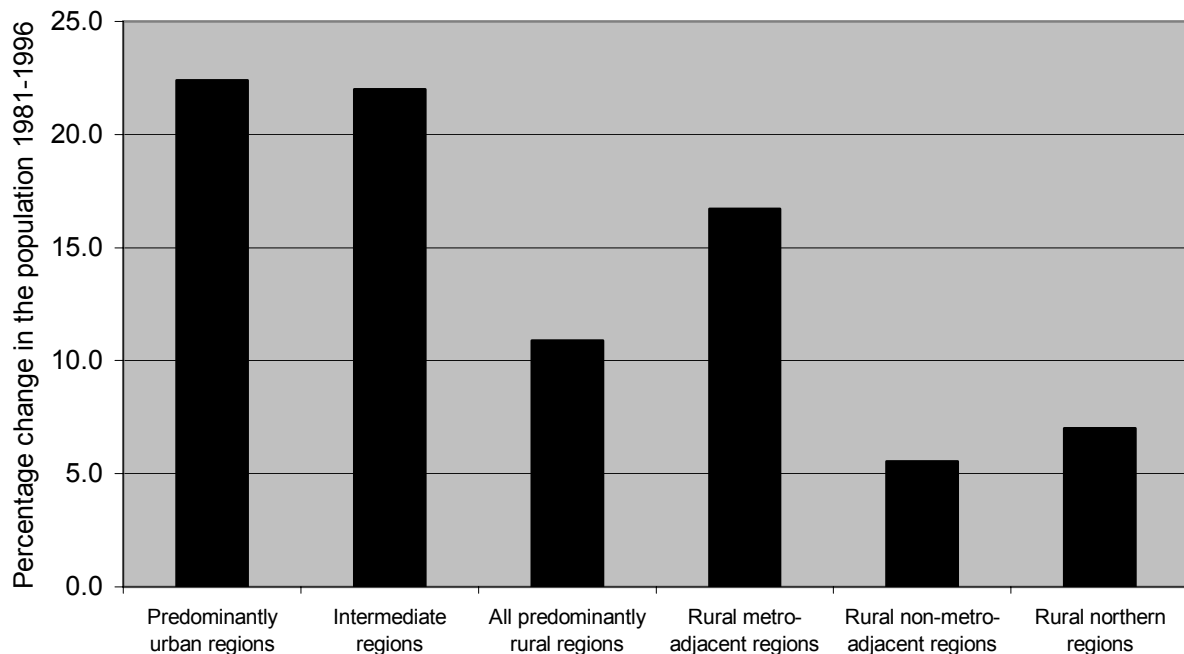
Of the total amount of land converted to urban uses in Canada between 1971 and 1996, about half, or 5,900 square kilometres, was "dependable" agricultural land. The urban consumption of agricultural land is partly due to the growing urban population and it is partly due to higher land consumption by each new urban dwelling.

IV.7.4 Concluding remarks

The selection of results for Canada shown above gives a good illustration of how rural areas perform *vis-à-vis* urban areas in a large range of areas. It can certainly provide a good basis for policy decisions concerning rural development issues. However, for a complete picture, additional information could be added for the following areas:

- Land and typology issues, including amenities;
- Recreation and tourism;
- Communication infrastructure;
- Cultural activities;
- Crime rate;
- Analysis of out-outliers: identification of successful and unsuccessful communes and areas and analysis of the factors behind the results.

Figure IV.7.1
Canada: Percentage population change by types of regions, 1981-1996



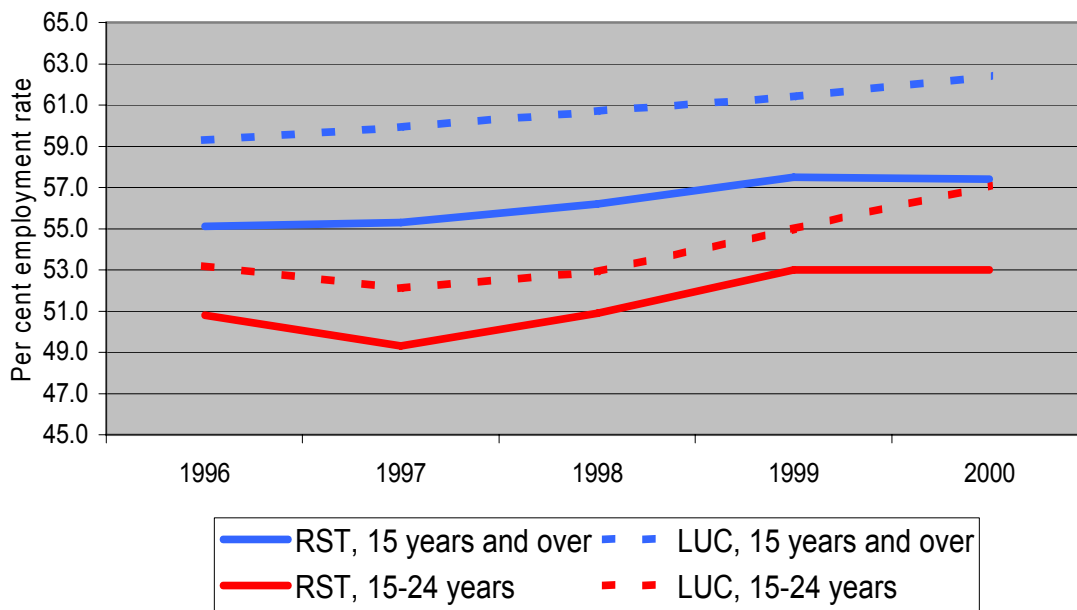
Source: Rural and Small Town Canada Bulletin, Vol.2, No. 2.

Table IV.7.1
Canada: Employment level and rate and unemployment rate in larger urban centres and rural and small town, 1996 and 2000

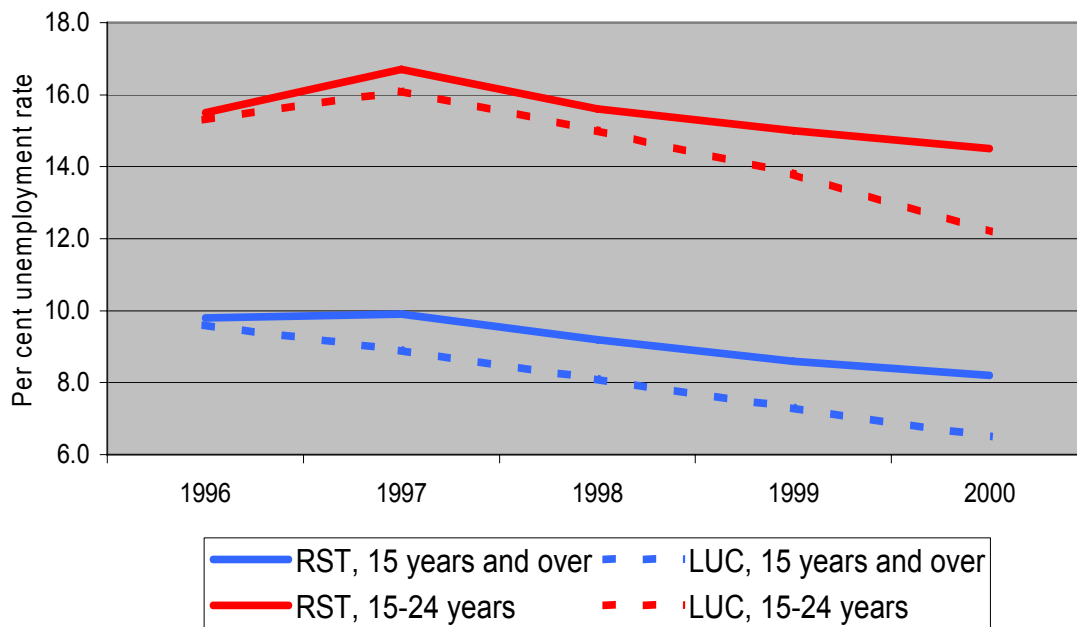
	1996	2000	% change
Employment level			
Larger urban centres	8,191,200	8,960,700	9.4
Rural and small town	1,913,100	2,104,200	10.0
Employment rate (per cent)			
Larger urban centres	76.8	80.7	
Rural and small town	73.4	77.1	
Difference	3.4	3.6	
Unemployment rate (per cent)			
Larger urban centres	8.6	5.4	
Rural and small town	9.1	7.2	
Difference	0.5	1.8	

Source: Rural and Small Town Canada Bulletin, Vol.3, No. 4.

Figure IV.7.2
Canada: Employment and unemployment rates by age groups and type of geographical area,
1996-2000
(RST = rural and small town areas; LUC = larger urban centres)



Source: Rural and Small Town Canada. Vol. 3, No. 4.



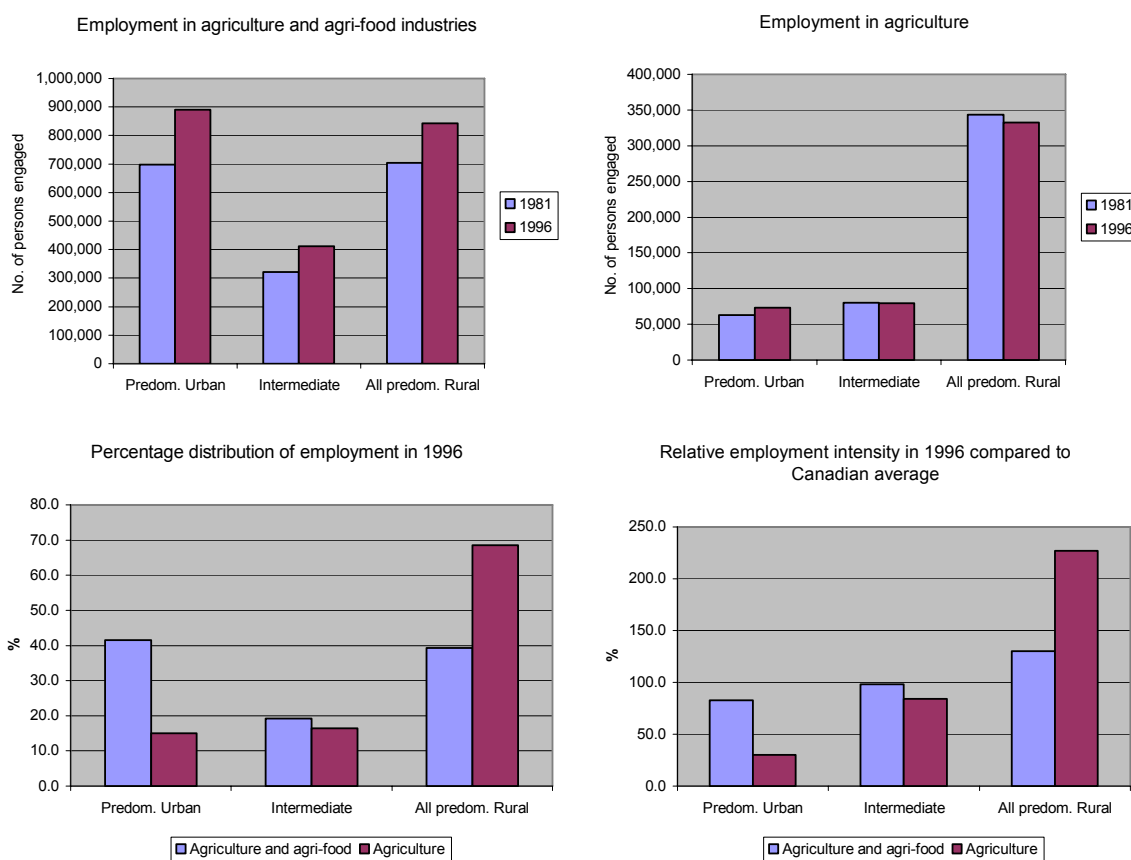
Source: Rural and Small Town Canada. Vol. 3, No. 4.

Table IV.7.2
Canada: Household expenditures by expenditure categories in urban and rural areas, 1986 and 1996 (constant 1996 dollars)

	Urban		Rural	
	1986	1996	1986	1996
<i>Per cent of total expenditures</i>				
Food	14.1	11.9	15.4	13.4
Clothing	6.3	4.3	6.4	4.3
Shelter	16.5	17.5	14.2	15.7
Total	36.9	33.7	36.0	33.4
<i>Expenditure in \$ per household</i>				
Private transportation	4,194	5,415	4,430	6,113
Public transportation	468	576	202	215
Total	4,662	5,990	4,632	6,328
<i>Per cent of transportation expenditures</i>				
Private transportation	90	90	96	97
Public transportation	10	10	4	3
Total	100	100	100	100
<i>Expenditure per household in constant 1996 dollars</i>				
Tobacco products and smoker's supplies	734	512	795	619
Alcoholic beverages	927	627	750	562

Source: Rural and Small Town Canada Bulletin, Vol.1, No. 4.

Figure IV.7.3
Canada: Employment in agriculture and agri-food by type of regions



Source: Statistics Canada, Rural and Town Canada Analysis Bulletin, Vol.4, No.8.

Table IV.7.3
Canada: Selected health indicators by type of region

	Self-rated health (excellent)	Body mass index (overweight)	Smoking (daily/ occasionally)	Arthritis/ Rheumatism
Major metro (central)	26.9	26.5	21.6	13.4
Major metro (fringe)	28.6	32.8	27.5	14.3
Mid-sized metro	25.3	32.7	25.5	16.0
Small metro	24.9	35.4	28.3	16.8
Small city: metro adjacent	25.8	35.2	29.4	16.2
Small city: non-metro adjacent	24.0	35.7	26.7	16.4
Small town: metro adjacent	24.5	36.8	29.1	16.3
Small town: non-metro adjacent	21.9	37.1	29.5	15.9
Rural: metro adjacent	19.3	45.3	26.5	14.7
Rural: non-metro adjacent	20.2	42.3	32.0	18.4
Northern	20.8	41.9	32.7	16.1
Canada	25.6	32.4	25.9	15.3

Source: Statistics Canada, Rural and Small Town Canada Analysis Bulletin, Vol. 4, No. 6

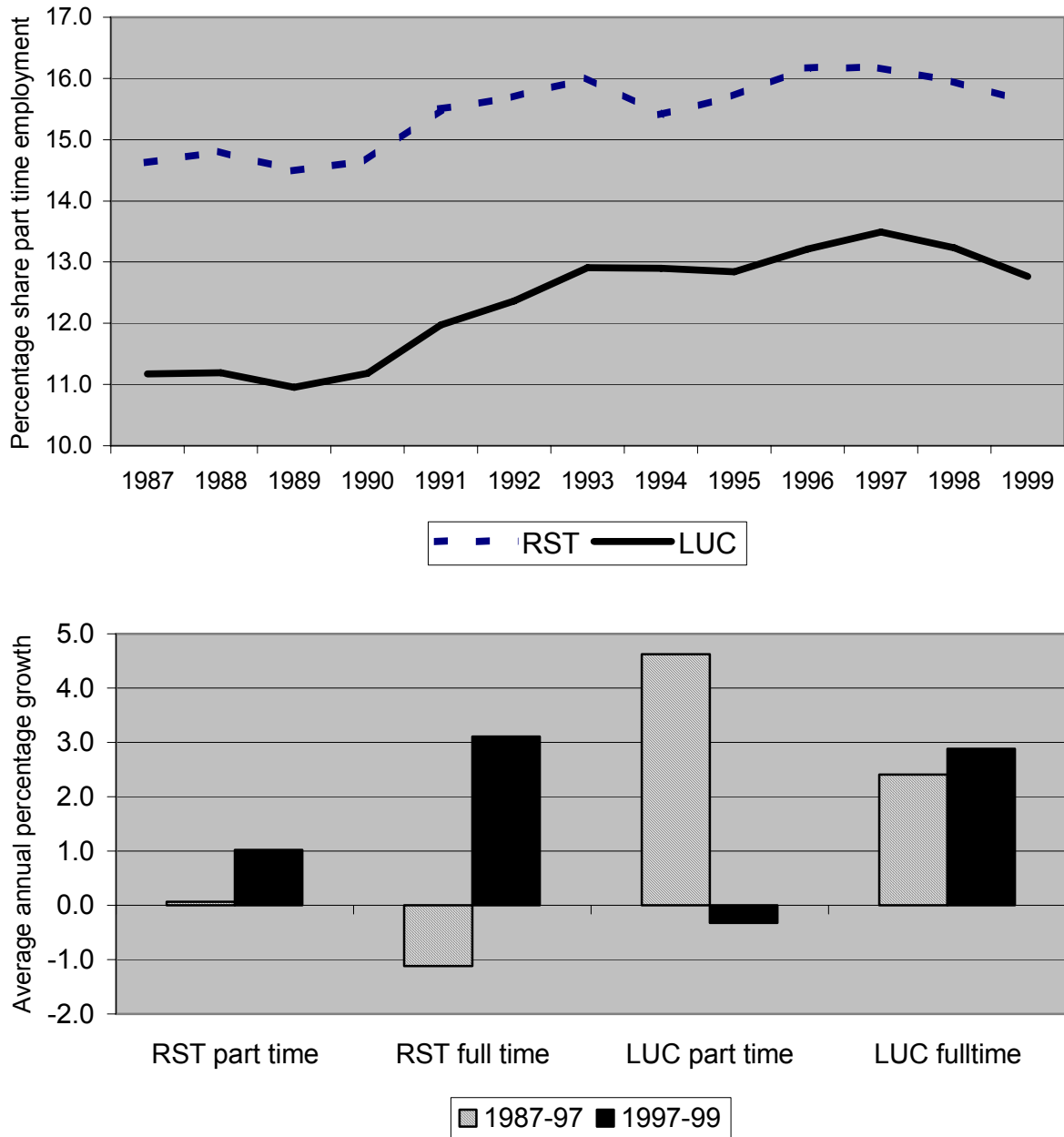
Note: Bolded grey cells indicate significantly different than the national average.

Table IV.7.4
Canada: Percentage distribution of population (25 to 54 years of age)
by level of educational attainment

	Less than grade 9		Grade 9-13 (no certificate)		High school certificate (no post secondary)		Some secondary	
	1981	1996	1981	1996	1981	1996	1981	1996
Predominantly urban	14.7	5.5	22.4	17.2	13.4	14.6	49.6	62.8
Intermediate	16.9	5.5	26.1	21.1	14.2	16.5	42.9	56.9
Rural metro-adjacent	18.2	6.3	30.2	25.6	12.6	16.8	38.9	51.2
Rural non-metro-adjacent	23.1	9.5	29.4	27.5	12.3	15.8	35.2	47.1
Rural northern	24.6	11.7	27.6	26.6	10.2	12.7	37.5	49.0
Canada	17.0	6.3	25.4	20.7	13.2	15.4	44.4	57.6

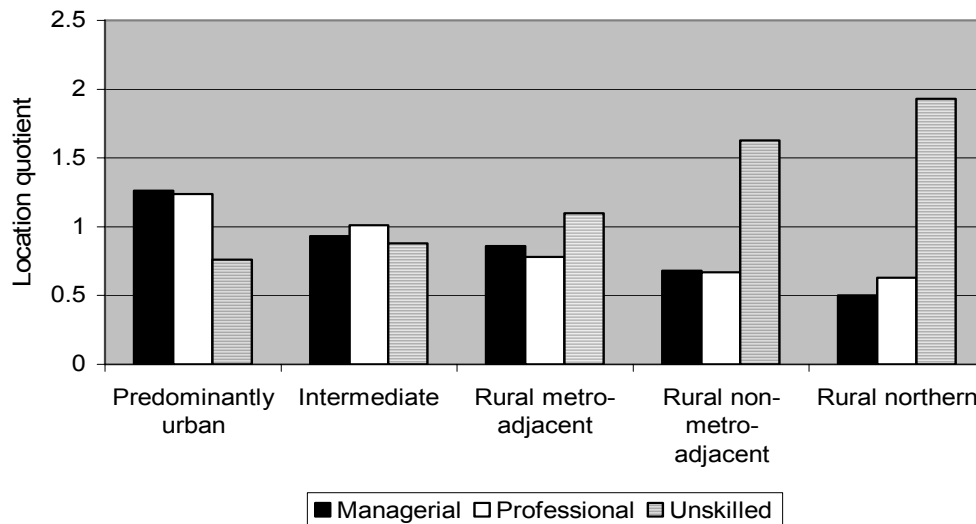
Source: Statistics Canada, Rural and Town Canada Analysis Bulletin, Vol.4, No.5.

Figure IV.7.4
(a) Canada: Percentage share part-time employment in RST and LUC in 1987-1999
(b) Canada: Annual average percentage change in part time and full employment in 1987-1997
and 1997-1999
 (RST = rural and small town areas; LUC = larger urban centres)



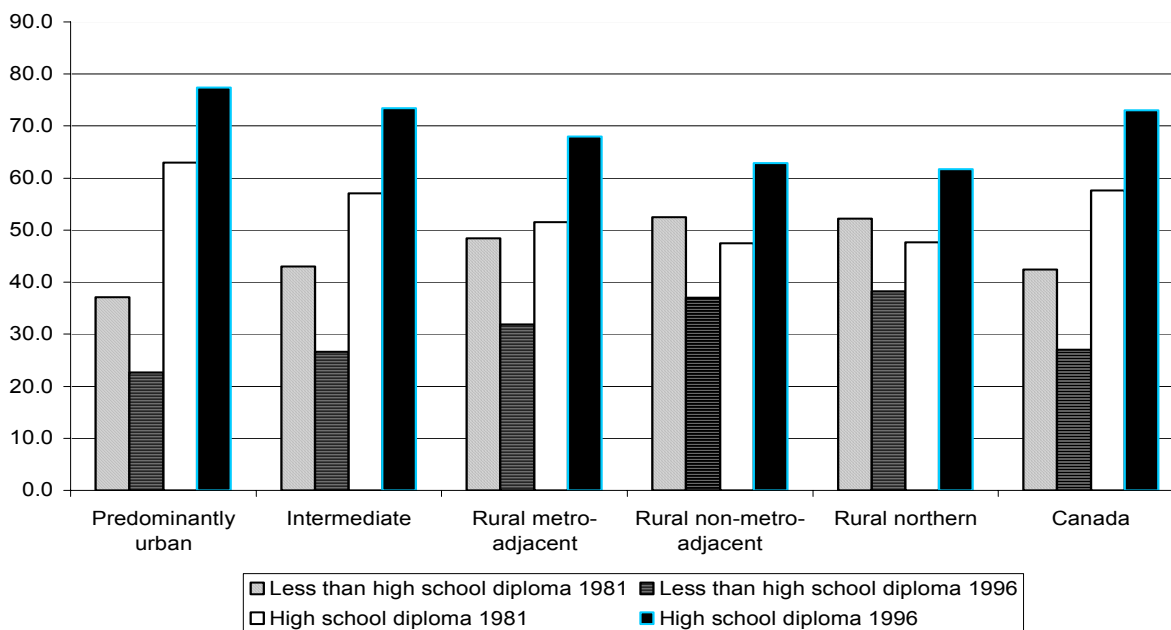
Source: Rural and Small Town Canada Analysis Bulletin, Vol. 4, No. 1.

Figure IV.7.5
Canada: Intensity of occupation by type of occupation and region in 2001, expressed as a location quotient⁷



Source: Rural and Small Town Canada Analysis Bulletin, Vol.5, No. 8

Figure IV.7.6
Canada: Percentage distribution of population (25 to 54 years of age) by level of educational attainment



Source: Statistics Canada, Rural and Town Canada Analysis Bulletin, Vol.4, No.5.

⁷ The ratio of the per cent of total regional employment in a given occupational skill level divided by the percent of total employment in that occupational skill level in the nation as a whole.

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**Information on rural development and related statistics
available on the Internet for selected countries**

Australia

Australian Bureau of Statistics (small area statistics under Themes – Regional Statistics)

www.abs.gov.au/

Bulgaria

Ministry of Agriculture

www.mzgar.government.bg

Canada

Canadian Rural Partnership:

www.rural.gc.ca

Rural and Small Town Canada Analysis Bulletin:

www.statcan.ca/english/freepub/21-006-XIE/free.htm

Statistics Canada – community profiles:

www12.statcan.ca/english/profil01/PlaceSearchForm1.cfm

Statistics Canada - Definition of Rural:

www.statcan.ca/english/IPS/Data/21-601-MIE2002061.htm

Denmark

Statbank Denmark:

www.statistikbanken.dk/

Estonia

Statistical Office (regional statistics on local government units, county and NUTS 3 level)

www.stat.ee/

France

INSEE (statistics on rural and urban zones):

www.insee.fr (rubrique ‘territoire’)

Germany

Federal Office for Building and Regional Planning

www.bbr.bund.de/

Federal Statistical Office

www.destatis.de/themen/d/thm_regional.htm

Hungary

Ministry of Agriculture and Regional Development

www.fvm.hu/main.php?folderID=945

Kazakhstan

Agency of Statistics

www.stat.kz

Kyrgyzstan

Statistical Office

www.stat.kg

Latvia

Central Statistical Bureau (Agricultural Census and Population Census data)

www.csb.lv/

Lithuania

Statistics Lithuania (regional and agricultural statistics)

www.std.lt

Norway

Statistics Norway (regional statistics)

www.ssb.no/english/subjects/00/00/02

Russian Federation

Ministry of Agriculture and Food

www.aris.ru (Russian)

Goskomstat Russia

www.gks.ru / <http://www.gks.ru/eng/>

Institute of Agricultural Marketing

www.apkmarket.ru / <http://www.apkmarket.ru/aboute.html>

Switzerland

Federal Statistical Office (Scattered information)

www.bfs.admin.ch

United Kingdom

Department for Environment, Food and Rural Affairs (Defra) <http://www.defra.gov.uk/rural/default.htm>

Office for National Statistics (ONS)

<http://www.statistics.gov.uk/geography/nrudp.asp>

Scotland: www.scotland.gov.uk

Wales: www.wales.gov.uk

United States

United States Census Bureau

www.census.gov/

Bureau of Labor Statistics

www.bls.gov/

Bureau of Economic Analysis

www.bea.gov/

Economic Research Service

www.ers.usda.gov/

National Agricultural Statistics Service

www.nass.usda.gov/

