

## **Economic Change in Canadian Rural Areas, 1986 to 1996**

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### **1. Introduction**

This paper examines the form and determinants of economic change in the rural areas of Canada between 1986 and 1996. Comparisons are made with economic change in urban areas over the same period. The influence of location is discussed, considering both the region of the country and proximity to a metropolitan area. Emphasis is placed on comparing and contrasting faster and slower growing rural areas. Estimates of the determinants of the growth rates of rural areas are made.<sup>1</sup>

### **2. Past Research**

Bollman (1999), examining economic change in Canadian rural areas in the 1980s, found a wide variability in local economic growth. Economic growth was positively related to the proximity to a metropolitan centre and, interestingly, having a relatively higher share of population with low incomes. The community's education level had little positive impact on employment growth. Areas more specialized in primary industries or traditional manufacturing were at a disadvantage.

Used 1981 and 1991 Census of Population data Statistics Canada developed a typology of rural areas for the 1980s (Fellegi 1996). The primary bases for the classification were income, education, economic base, proximity to a metropolitan area, and rate of population change. Census divisions were grouped as urban frontier (within a larger city or adjacent to a metropolitan area), rural nirvana (migration of city dwellers to the countryside), agro-rural (rapid population decline and a relatively high dependency on government social transfer payments), rural enclave (declining industries), and resourced areas (dominated by mining or oil).

A study of non-metropolitan counties of the American central states in the 1980s found growth in employment and income to be negatively related to labour costs and natural resource dependency and positively related to in-migration of those of retirement age. (Smith 1992) The economies of rural winners appear to have been influenced more by manufacturing, retail trade, and services than by farming or mining. Generally counties adjacent to metropolitan areas grew faster than counties not adjacent to metropolitan areas, but not all fast growing counties were next to metropolitan areas. Goffette-Nagot and Schmitt (1999) concur with the metropolitan influence on nearby rural areas. They find that, for selected regions of France, diseconomies of urban size encourage population spread and decentralisation of services to rural areas around large urban areas.

More attention has been paid to economic change in the urban areas of Canada. Coffey and Shearmur (1998), for example, test hypotheses about the relationships between the characteristics of an urban area and its employment growth for the 1971-1991 period. Using data on 152 Canadian urban areas with populations of more than ten thousand, they considered urban areas' region of location, population size, proximity to a major urban area, firm size structure, diversity of economic structure, and socio-economic characteristics. They found that region, population size, and socio-economic characteristics influenced employment growth.

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Although urban areas have usually grown faster than urban areas, the proportion of the American population living in metropolitan areas declined in the 1970s. Net migration was to non-metropolitan areas. Greenwood (1985) states that various influences reduced the advantages of urban areas, including possible diseconomies of metropolitan urban locations, a declining importance of distance, the availability of urban amenities to both residents and commuters, and changes in the demographic structure of the population and labour force.

Gordon et al (1998), in examining employment trends for 1969-1994 across metropolitan and non-metropolitan areas in the US, find that after 1988 the vigorous non-metropolitan growth of the 1970s resumed with a clear rural emphasis. A steady decentralisation is observed, often beyond the suburbs to both the ex-urban and rural areas, locations attractive to firms due to improvements in goods handling and information transmission. Many firms are becoming more footloose due to both the information revolution and core agglomeration diseconomies now outweighing the original agglomeration economies that pulled people and economic activities together.

There is some indication that American rural economic development in the 1990s may differ from that in the 1980s. Nelson and Beyers (1998), examining rural areas of the western United States, find that nontraditional sources of income, employment, and business activity have become more important in the economic base of these rural areas in the 1990s. For example, there is an increasing importance of nonlocal sources of income for proprietors in some service industries. Regions are growing in population despite the decline in resource-based industries

### **3. Data and Definitions**

To examine economic change in the rural areas of Canada between 1986 and 1996 data from the 1986 and 1996 censuses were used. The data were available in electronic form, allowing more efficient analysis.

For the purposes of this paper the rural population is defined as those living outside a census metropolitan area (CMA). Census metropolitan areas are established by Statistics Canada to delineate urban areas, irrespective of political boundaries. A census metropolitan area is “a very large urban area (known as the urban core) together with adjacent urban and rural areas (known as the urban and rural fringes) that have a high degree of social and economic integration with the urban core. A CMA has an urban core population of at least 100,000 based on the previous census.”<sup>2</sup>

Census divisions were used as the basis for establishing rural areas for analysis. Census divisions are usually equivalent to various types of administrative areas set up by provinces and considerable economic and social data is available for them. Census division “is the general term applied to areas established by provincial law which are intermediate geographic areas between the municipality and the province. Census divisions represent counties, regional districts, regional municipalities, and other types of provincially legislated areas.” In Newfoundland, Manitoba, Saskatchewan, and Alberta census divisions were created by Statistics Canada as equivalent areas have not been established by the province.<sup>3</sup>

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<sup>2</sup> Statistics Canada, 1996 Census Dictionary.

<sup>3</sup> Ibid.

Considerable effort was required to develop comparable 1986 and 1996 rural areas. The geographical area covered by a census division often changed between 1986 and 1996. The 1996 boundaries of the census division were used and the 1986 census division data adjusted to cover the same area as the 1996 census division boundaries, using census sub-division information. Further adjustments were required to separate CMAs from rural areas. A CMA was usually not equivalent to a census division, sometimes spreading over several census divisions and sometimes only covering part of a census division. The rural areas in a census division with a CMA were removed and, depending on the population size, set up as a separate rural area or included with an adjacent census division.

The number of census divisions in a province or territory is roughly equivalent to the population of the province or territory, except in Quebec which, based in its population, has a relatively high number of census divisions. For purposes of analysis adjacent census divisions were consolidated in Quebec using economic regions and census agricultural areas as guides.<sup>4</sup>

A total of 202 rural regions were developed and examined., the number for each province and territory is listed in appendix table 1. Regions ranged in size from a 1986 population of 2,165 to 125,455. Only five regions had a population of less than 10,000 in 1986. The average population was 50,064 in 1986 and 54,335 in 1996.

Some of the economic and social data were not presented in the same format for the 1996 and 1986 census, particularly the data on age groups, industry of employment, education completed, mobility in the previous five years, and dwelling characteristics. These data were adjusted so that the 1986 and 1996 data for each rural area were comparable.

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<sup>4</sup> A census agricultural region is made up a group of adjacent census divisions; an economic region is a grouping of complete census divisions. (1996 Census Dictionary)

#### **4. Rural and Urban Canada, 1986 to 1996**

Between 1986 and 1996 there were considerable differences in the change taking place in the rural and urban areas of the country, comparisons are presented in appendix table A2. The urban population grew at almost twice the rate of the rural population. For the three broad age groups of 0-24, 25-64, and 65 and over the urban population grew faster, for the youngest group the rural population declined. Compared to urban areas few of the rural population are immigrants, but slightly more of the rural population migrated within Canada between 1991 and 1996.

One of the most dramatic differences between rural and urban Canada is the higher level of educational attainment in urban areas. The proportion of those in urban areas with a university degree is almost twice that for rural areas, correspondingly rural areas have a third more of their population with less than a high school education than urban areas.

Despite the greater population growth rate for urban areas, the rates of growth of the experienced labour force (those who worked since January 1 in the year preceding the census) were closer, the urban growth rate was only slightly greater than the rural. This is partly due to differences in changes in labour force participation rates. Although male and female participation rates moved similarly between 1986 and 1996 for rural and urban areas, the male participation rate declined more rapidly in urban areas and the female participation rate increased more rapidly in rural areas. Overall, rural areas increased their participation rate.

Some significant differences exist between rural and urban industry structures and changes in industry employment. Not unexpectedly, rural areas have a significantly higher percentage of employees in primary industries and urban areas a significantly higher percentage in business and other service industries. The proportions in other industries are similar. Industry change between 1986 and 1996 was not equally distributed between rural and urban areas, as detailed in appendix table A3. Overall rural areas captured 35.5% of the growth in employment, with considerable variation between industries. The industries where rural areas captured large proportions of the change, however, were industries with low growth or declines. Overall employment in primary industries declined, with 77.3% of this decline in rural areas. Rural areas had high proportions of the gain in jobs in construction and in transportation, storage, communication, and other utility industries but total Canadian growth in these industries was very low. The big increase in employment between 1986 and 1996 was in business and service industries, with rural areas gaining slightly less than their share.

Employment by occupation in urban and rural areas reflects their industrial structures. Rural areas have greater proportions of employment in trades, transportation, equipment operation, and primary industry occupations. Urban areas have higher percentages in management, business, finance, administration, science, culture, education, and government occupations.

## **5. Rural Change, by Region of Canada**

Location was an important determinant of rural change between 1986 and 1996. Appendix table A3 presents information for the Atlantic, Quebec, Ontario, prairie, British Columbia, and northern regions. The population of rural Atlantic regions decreased slightly but increased in all other regions, with a 12.6 % increase in Ontario and 27.4 and 25.7 percent increases in British Columbia and the northern regions respectively. The strong growth in B.C. and the north was reflected in the fact that only B.C. and the north had more faster growing rural areas than slower growing, faster growing regions having employment growth greater than the rate of total rural employment growth.

The two regions with the strongest growth in employment, British Columbia and the north, were propelled by their very strong growth in rapidly growing sectors of the economy, the service sectors. They also did well in several slower growing sectors, construction and wholesale and retail trade. While eastern rural Canada had losses in manufacturing employment, western rural Canada increased manufacturing employment. Primary industry employment declined everywhere but slightly increased in British Columbia. The Atlantic region suffered the greatest relative declines in manufacturing and government services.

Labour force participation rates fell for males and increased for females in all regions, although the change for males in the north was very small. Unemployment rates for males and females fell over the decade, with some regional exceptions, rising for both males and females in Ontario and for males in the Atlantic region.

The greatest increases in employment income were for females, particularly those who worked part year or part time. The incidence of low income declined everywhere, most dramatically in the Atlantic provinces.

## 6. Influence of Census Metropolitan Areas and Census Agglomerations

The influence on a rural region of being adjacent to a census metropolitan area (CMA) or including a census agglomeration (CA) is examined in appendix table A4.<sup>5</sup> Other studies have found metropolitan areas to have a spillover effect on adjacent rural areas. This is certainly evident here, rural regions adjacent to a CMA grew faster than the average rural area. Having a census agglomeration in the rural area also had a positive impact on population growth.

Examining employment change by industry, areas adjacent to a CMA and those with a CA generally do better than other rural areas. They were less dependent on primary industries and suffered lower percentage declines in primary industry employment; they were able to gain jobs in the business and service, wholesale and retail, and transportation, communication, storage, and utility sectors faster. These areas, however, were more dependent on manufacturing and sustained greater relative declines in this sector. Gains in construction employment appear to be associated with a CA and not with proximity to a CMA.

Proximity to a CMA has an impact on occupational change resulted in faster growth in management; business, finance, and administration; and trade, transportation, and equipment operating occupations; slower declines in occupations unique to primary and processing industries; and steeper declines in science, education, government, and culture occupations.

## 7. Faster and Slower Growing Rural Areas

Comparisons between faster and slower growing areas were based on their percentage change in employment between 1986 and 1996. Areas with employment growing faster than the overall rural increase in employment, 13.95%, were classified as faster growing, others were slower growing. The twenty fastest growing and twenty slowest growing areas were also compared. The results are available in appendix tables A6 and A7.

Faster growing areas were larger, more likely to be adjacent to a CMA, and more likely to include a CA. Education levels were higher, labour force participation rates generally higher, unemployment rates usually lower, and self-employment growing more quickly in the faster growing areas. For most industries the faster growing areas gained employment more rapidly than the slower growing areas. The big exception was the business and other service sector where the slower growing areas gained employment faster. Both faster and slower areas had similar proportions of employment in this sector in 1986 but slower growth areas were able to increase employment in this sector faster.

Average employment incomes were generally higher in the faster growing regions and the incidence of low income lower. The average employment income for males working full year and full time

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<sup>5</sup> Census agglomerations are concentrations of population between 10,000 and 100,000. A census agglomeration is a "large urban area (known as the urban core) together with adjacent urban and rural areas (known as urban and rural fringes) that have a high degree of social and economic interaction with the urban core. A CA has an urban core of a least 10,000 based on the previous census. However, if the population of the urban core of a CA declines below 10,000 the CA is retired. Once a CA attains an urban core population of at least 100,000, based on the previous census, it is eligible to become a CMA." (1996 Census Dictionary)

increased proportionately more, however, in slower growth areas.

When the fastest growth twenty areas are compared with the slowest growth twenty areas a similar set of differences is observed but the contrasts are greater. The median population of the bottom areas actually declined, along with employment in all industries except transportation, communication, storage, and utilities and business and other services industries. Most of the top twenty areas in growth in employment were in British Columbia, most of the bottom twenty were in the Atlantic or prairie provinces.

## 8. Shift and Share Analysis

The components of an area's growth over a time period may be examined with shift-share analysis.<sup>6</sup> Three types of shift are computed: total shift, proportionality shift, and differential shift. The total shift measures the difference between the actual change in employment an area and the change that would have occurred had the area grown at the national average rate. This difference between an area's growth rate and the national growth rate may be accounted for by the area's mix of industries, that is the distribution of the area's employment between faster growing and slower growing industries, and the area's change in share of total employment in each industry. The effect of an area's industry mix is measured by the proportionality shift; an area specialising in industries which are growing rapidly at the national level has a positive proportionality shift, an area dominated by nationally slow-growing industries will have a negative proportionality shift. The effect of changing area shares of total national employment in each industry is measured by the differential shift. Areas with positive differential shifts are those which have grown by attracting larger than average shares of industries.

For a given area, the shifts may be represented as follows:

$$\text{Total shift} = E_{jt} - [(E_t/E_o)E_{j_o}]$$

$$\text{Proportionality shift} = \sum_I [(E_{it}/E_{i_o}) - (E_t/E_o)]E_{ij_o}$$

$$\text{Differential shift} = \sum_I [E_{ijt} - (E_{it}/E_{i_o})E_{ij_o}]$$

where E is employment, j the area under consideration, I the industry under consideration, o the beginning year, and t the ending year.

The three shifts were computed for all urban and all rural change in employment both by industry and occupation categories. Total shifts were positive for urban employment and negative for rural, reflecting the fact that urban employment grew faster than the national average and rural employment slower. For urban employment by industry the urban proportionality shift was positive and the differential shift negative. Urban employment grew by having industries in the faster growing industry groups and not by attracting larger shares of industries. In contrast the rural proportionality shift was negative and the differential shift positive. Rural area industries were in the slower growing categories but growth was through attracting larger shares of industry groups.

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<sup>6</sup> Also referred to as shift analysis and mix and share analysis. See Bandavid (1974) pp. 82-93 for further discussion of this technique.

The shifts can also be used to growth in rural areas. Total shifts, proportionality shifts, and differential shifts were calculated for each of the 202 rural areas and correlated with the area's 1986-1996 growth rate of employment and absolute growth in employment. The results are presented in table 1.

**Table 1. Correlation coefficients, shift and share analysis**

	Total shift	Proportionality shift	Differential shift
Rate of growth in employment	.6766*	.0210	.5291*
Absolute growth in employment	.9140*	.2178*	.7460*

Note: \* indicates coefficient significant at the .01 level.

The positive coefficients for the differential shift indicate that the rate of growth in rural regions was associated with attracting larger shares of the broad industry groups. The higher rates of growth in rural regions were associated with attracting greater shares of industry employment. The positive, although weaker, relationship between the absolute growth in employment in a rural area and the value of the proportionality shift for that area indicates that rural areas which increased employment the most also did this by having the faster growing industry groups. As expected total shift is positively related to both growth measurements.

## 9. Determinants of Rural Employment Growth

Regression analyses were used to assess possible determinants of employment growth in rural regions. The rate of rural growth was hypothesised to be positively related to the presence of a census agglomeration in an area as the strong growth of metropolitan areas in the metropolitan areas of Canada was expected to be reflected in strong growth in lesser population concentrations. Since spillovers of urban growth to neighbouring rural areas have been observed, rural areas adjacent to census metropolitan areas are expected to grow faster. With varying regional rates of growth in Canada, the region the rural area is located in is expected to be a determinant of its growth. Certain characteristics of the population of the rural area should also influence its growth rate. Regions with larger populations should be able to grow faster by taking advantage of agglomeration economies and industry linkages; a higher proportion of the population 65 years of age and older possibly indicates an attractive area for retirees, a stimulant to growth; and a more highly educated work force should be an advantage for the area. Past studies have indicated that areas with higher proportions of employment in primary and secondary industries have grown slower.

**Table 2. Estimates for Employment Growth in Rural Areas**

Independent Variables	Dependent Variables	
	% Change in Employment, All Rural Areas	% Change in Employment, Rural Areas Without a CA
Rural area includes a CA	.001 (.010)	NA
Rural area adjacent to a CMA	.130 (1.924)*	.202 (2.194)**
Atlantic region	.011 (.131)	-.114 (-.913)
Quebec	-.016 (-.209)	-.041 (-.394)
Prairie provinces	.125 (1.162)	.402 (2.516)**
British Columbia	.435 (5.212)***	.480 (4.089)***
Yukon and NWT	.074 (1.176)	.095 (1.093)
1986 population	.354 (4.727)***	-.135 (-1.500)
% of 1986 pop. 65 and over	.049 (.779)	-.015 (-.179)
% of 1986 pop. 15 and over with post high school educ.	.003 (.039)	.046 (.376)
% of 1986 employed pop. in primary industries	-.232 (-2.235)**	-.504 (-3.474)***
% of 1986 employed pop. in secondary industries	-.139 (-1.334)	-.017 (-.098)
Adjusted R <sup>2</sup>	.329	.355
F value	7.913	6.400
N	202	93

Notes: 1. Dummy variables used to indicate region.

2. t values are in parentheses. \* indicates significance at the .10 level, \*\* indicates significance at the .05 level, \*\*\* indicates significance at the .01 level.

The regression analyses confirm some of these hypotheses. For all rural regions the strongest determinants of the rate of growth are proximity to a census metropolitan area, location in British Columbia, the population size in 1986, and the proportion of employment in primary industries. A rural area's growth rate was positively affected by adjacency to a CMA, a British Columbia location, and a larger population in 1986. The growth rate was adversely affected by the area having a high proportion of employment in primary industries in 1986.

Possible determinants of growth for rural areas without a census agglomeration were also examined. These areas may be regarded as more "rural," not having a concentration of population of more than 10,000. Proximity to a CMA, a British Columbia location, and a low proportion of 1986 employment in primary industries remain the most powerful influences on growth rates. The 1986 population of an area no longer influences its growth but a prairie location is now positively related to growth.

## **10. Summary and Conclusions**

Between 1986 and 1996 change in the rural areas of Canada differed from that in urban areas. The urban population grew at almost twice the rate of the rural population but rates of growth of the experienced labour force, those who worked since January 1 in the year preceding the census, were closer, with the urban growth rate only slightly greater than the rural. Part of the reason is that rural areas maintained a higher labour force participation rate, male labour force participation rates declined faster in urban areas and female participation rates increased faster in rural areas. Between 1986 and 1996 rural areas captured 35.5% of the growth in employment, but industries where rural areas captured large proportions of the change were industries with slow growth or declines. The big increase in employment between 1986 and 1996 was in business and service industries, rural areas obtained less than a third of this increase in employment.

Rural growth varied by region of the country. Employment increases were strongest in British Columbia and the north, propelled by strong growth in the service sectors in these areas. The location of a rural area with respect to census metropolitan areas and census agglomerations also affected its rate of growth. Areas adjacent to a CMA and those that included a CA generally did better than other rural areas.

Faster growing areas did so by gaining employment in most industries more rapidly than the slower growing areas, with the exception of business and services industries where, despite this sector's rapid growth, the slower growing areas had a higher rate of increase in these industries.

Shift and share analysis indicates that urban employment grew by having faster growing industries while rural areas grew by attracting larger shares of industry sectors. For rural areas higher rates of growth were associated with attracting greater shares of industry employment, absolute rural area growth was associated with both attracting greater shares of employment and having a structure of faster growing industries.

The employment growth rate of a rural area was increased by a location next to a census metropolitan area, to take advantage of spillovers from the metropolitan area; a British Columbia location, a province with a high growth rate in 1986-1996; having a larger population in 1986, likely to take advantage of agglomeration economies and industry linkages; and having a low proportion of employment in primary industries in 1986, an industry group which declined in this period.

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**APPENDIX****Table A1. Number of Rural Regions, by Province and Territory**

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	Number of rural regions
Canada	202
Atlantic provinces	44
Newfoundland	10
Prince Edward Island	3
Nova Scotia	18
New Brunswick	13
Quebec	35
Ontario	39
Prairie provinces	55
Manitoba	19
Saskatchewan	17
Alberta	19
British Columbia	27
Yukon	1
Northwest Territories	1

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**Table A2. Rural and Urban Canada, 1986-1996**

		Rural	Urban
Total Population			
1986		10,103,500	15,191,220
1996		10,937,110	17,902,770
Change 1986 - 1996 (%)		8.3	17.9
Age Distribution			
0 - 24	Proportion of 1996 population	34.9	33.1
	% Change 1986 - 1996	-4.5	6.7
25 - 64	Proportion of 1996 population	51.8	55.4
	% Change 1986 - 1996	14.6	22.7
65 and over	Proportion of 1996 population	13.3	11.4
	% Change 1986 - 1996	25.4	33.0
Proportion of the population who are immigrants, 1996 (%)		6.7	24.0
Mobility, % of 1996 population moving in last five years			
Intraprovincial migrants		13.8	11.8
Interprovincial migrants		3.4	3.0
External migrants		0.8	4.7
Education Attainment, 1996			
Less than high school completion		40.9	30.3
High school completion only		14.1	14.1
Beyond high school, without degree		35.7	38.0
University degree		9.4	17.5
Change in the experienced labour force, 1986-1996			
Number		562,505	1,024,275
Per cent		12.1	12.7
Unemployment rate			
1986		12.6	9.0
1996		11.5	9.3

		Rural	Urban
Participation rate			
Males	1986	74.9	79.1
	1996	71.2	73.5
Females	1986	51.0	58.9
	1996	56.0	60.1
Employment, by industry			
Primary	% change 1986 - 1996	-7.2	-7.7
	1996 (%)	12.1	1.9
Manufacturing	% change 1986 - 1996	-3.0	-9.2
	1996 (%)	14.2	14.3
Construction	% change 1986 - 1996	15.1	4.2
	1996 (%)	6.5	5.3
Transport, communication, storage, and utilities	% change 1986 - 1996	9.4	5.8
	1996 (%)	6.9	7.5
Wholesale, retail	% change 1986 - 1996	16.2	12.7
	1996 (%)	16.6	17.9
Business and other service:	% change 1986 - 1996	31.2	29.9
	1996 (%)	37.6	46.8
Government service:	% change 1986 - 1996	-8.3	-8.5
	1996 (%)	6.0	6.3
Employment, by occupation group, 1996, % of total employment			
Management		7.5	9.8
Business, finance, administration		14.5	21.6
Science, education, government, culture		11.4	16.2
Health		4.9	5.1
Sales, service		25.7	26.2
Trades, transportation, equipment operation		17.0	12.4
Primary occupations		10.2	1.6
Processing, manufacturing, utility occupations		8.8	7.0

Note: Business and other services includes finance, insurance, real estate operator, insurance agent, business service, education service, health and social service, accommodation service, food and beverage service, and other service industries

**Table A3. Urban and Rural Industry Change, 1986-1996**

Industry	Change in number employed, 1986-1996			Distribution of total change (%)	Rural change, % of total for industry
	Urban	Rural	Total		
Primary	(14,290)	(48,585)	(62,875)	-4.0	77.3
Manufacturing	(132,215)	(23,090)	(155,305)	-9.8	14.9
Construction	19,205	44,680	63,885	4.0	70.0
Transport., comm., stor., util.	37,635	30,925	68,560	4.3	45.1
Wholesale and retail	182,940	120,785	303,725	19.2	39.8
Business and other services	982,755	465,045	1,447,800	91.4	32.1
Government services	(53,385)	(28,035)	(81,420)	-5.1	34.4
Total	1,022,645	561,725	1,584,370	100.0	35.5

**Table A4. Rural Change by Region, 1986-1996**

	Atlantic	Quebec	Ontario	Prairie Provinces	British Columbia	Yukon & NWT
<b>Population Change 1986 - 1996</b>						
Urban	25.0	13.2	20.7	11.5	30.5	NA
Rural	(4.0)	2.9	12.6	3.7	27.4	25.7
<b>Total number of rural regions</b>						
Faster growth rural regions	13	13	15	19	24	2
Slower growth rural regions	31	22	24	36	3	0
<b>Labour Force Participation Rate</b>						
Males 1986	71.5	74.0	75.8	79.1	75.3	79.8
1996	67.8	70.0	70.9	76.6	72.7	79.8
Females 1986	48.9	46.0	53.3	54.0	51.4	65.3
1996	53.1	51.0	57.1	60.7	58.6	72.3
<b>Unemployment Rate</b>						
Males 1986	18.7	17.0	6.6	7.5	14.7	14.5
1996	20.5	16.0	9.6	7.4	11.6	13.4
Females 1986	22.4	18.0	9.8	9.1	17.1	12.8
1996	19.4	13.0	10.0	6.8	10.6	10.8
Employment change (%)	6.2	8.8	10.9	9.4	42.0	34.8
<b>Employment change, by industry</b>						
Primary	(5.5)	(11.6)	(12.7)	(6.1)	1.2	(4.8)
Manufacturing	(15.6)	(0.8)	(9.4)	16.8	13.2	17.2
Construction	7.2	(2.2)	10.5	3.0	78.7	40.6
Transport., comm., stor., utilities	(0.3)	11.7	12.3	4.3	13.0	13.6
Wholesale and retail	7.3	11.0	16.0	10.7	40.3	30.3
Business and other services	24.2	9.0	31.9	24.6	58.3	57.4
Government services	(20.6)	(15.2)	(5.2)	(15.5)	20.3	23.8

	Atlantic	Quebec	Ontario	Prairie Provinces	British Columbia	Yukon & NWT
Average Employment Income						
Males worked full year, full-time						
1986	25,260	30,192	27,123	23,770	31,030	33,846
1996	34,989	34,130	38,975	32,471	43,329	49,597
Change (%)	38.5	13.5	43.7	36.6	39.6	46.5
Males worked part year or part-time						
1986	15,368	11,489	11,819	13,939	16,119	13,118
1996	19,592	17,677	16,794	14,244	21,812	17,924
Change (%)	27.5	53.9	42.1	2.2	35.3	36.6
Females worked full year, full-time						
1986	17,668	15,119	17,772	18,264	19,602	24,714
1996	27,475	23,397	27,375	21,813	28,309	38,876
Change (%)	55.5	54.8	54.0	19.4	44.4	57.3
Females worked part year or part-time						
1986	8,228	6,403	6,704	7,490	7,529	8,839
1996	12,733	11,089	11,538	9,512	12,723	14,553
Change (%)	54.8	73.2	34.7	27.0	69.0	64.7
Incidence of low income, economic families						
1986	24.0	17.0	11.2	16.4	13.7	NA
1996	15.4	15.0	10.9	12.9	12.1	NA

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Note: An economic family is a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law, or adoption. (1996 Census Dictionary).

**Table A5. Influence of Census Metropolitan Areas and Census Agglomerations**

		Regions Adjacent to a CMA	Regions With a CA	Adjacent to a CMA with a CA	All Other Regions
Number of Regions		30	71	22	79
Change in Population 1986-1996 (%)		10.7	8.5	13.6	2.3
Mobility, % of 1996 population moving in last five years					
Intraprovincial migration		34.9	13.0	14.7	11.5
Interprovincial migration		0.5	4.3	1.9	3.7
External migration		0.7	0.8	1.0	0.7
Employment by industry					
Primary	1986 (%)	12.9	13.4	10.7	21.8
	% change 1986-1996	-4.4	-7.1	-7.2	-19.0
	1996 (%)	11.0	11.1	8.7	18.5
Manufacturing	1986 (%)	19.6	13.8	23.0	13.3
	% change 1986-1996	-5.0	-3.0	-3.8	-2.6
	1996 (%)	16.7	11.9	19.4	12.1
Construction	1986 (%)	7.1	6.2	6.1	6.5
	% change 1986-1996	5.8	20.7	13.9	9.5
	1996 (%)	6.7	6.6	6.1	6.7
Transportation, commun., storage, and utilities	1986 (%)	7.0	7.7	6.0	7.2
	% change 1986-1996	12.9	3.8	22.1	4.1
	1996 (%)	7.1	7.1	6.4	7.0
Wholesale and retail	1986 (%)	15.9	16.7	16.5	14.4
	% change 1986-1996	16.6	15.5	18.4	11.6
	1996 (%)	16.6	17.2	17.1	15.0
Business and other services	1986 (%)	31.0	34.3	31.7	29.3
	% change 1986-1996	33.0	29.6	34.6	27.0
	1996 (%)	36.9	39.5	37.4	34.7
Government services	1986 (%)	6.6	8.1	6.0	7.5
	% change 1986-1996	-11.8	-7.4	-2.8	-15.1
	1996 (%)	5.2	6.7	5.1	6.0

	Regions adjacent to a CMA	Regions with a CA	Adjacent to a CMA with a CA	All other regions
Employment by occupation, % change 1986-96				
Management	9.0	5.1	4.7	0.7
Business, finance and administration	16.8	25.9	20.1	11.2
Science, education, government, culture	-36.7	-8.7	-11.1	-16.1
Health	25.9	-28.3	22.2	17.7
Sales and services	41.1	21.0	36.9	34.4
Trade, transportation, and equipment	94.9	55.5	81.2	46.9
Primary	-2.7	-10.4	-3.3	-8.6
Processing	-16.8	-65.5	-25.9	-29.4
Average Employment Income				
Males worked full year, full-time				
% change 1986-1996	41.0	33.0	14.1	40.6
1996 (\$)	33,732	39,094	37,723	34,150
Males worked part year or part-time				
% change 1986-1996	42.6	43.5	41.0	35.3
1996 (\$)	16,865	17,977	17,186	16,292
Females worked full year, full-time				
% change 1986-1996	35.1	46.8	52.5	38.0
1996 (\$)	22,101	26,648	25,900	23,517
Females worked part year or part-time				
% change 1986-1996	62.4	60.5	64.8	55.6
1996 (\$)	10,332	11,070	11,195	10,032
Incidence of low income, economic families, 1996	11.1	14.0	12.0	13.9

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**Table A6. Faster and Slower Growing Regions**

	Faster Growth	Slower Growth
<b>Median Population</b>		
1986	48,962	39,713
1996	56,421	37,091
Percent change	15.2	(6.6)
Percent adjacent to CMA	27.3	24.1
Percent with CA	48.9	42.2
<b>Age Distribution, 1986, % of total pop.</b>		
0 - 24 years of age	39.8	39.5
25 - 64 years of age	49.3	48.7
65 years and over	10.7	11.8
<b>Education, 1986, % of pop.15 and over</b>		
Less than Grade 9	19.8	23.4
Grade 9 to 13	42.5	42.4
Trade cert/diploma, other non-univ.	24.6	22.7
University without degree	7.0	6.2
University with degree	6.1	5.3
<b>Labour force participation rates</b>		
Males 1986	75.2	74.1
1996	73.2	69.5
Females 1986	52.0	49.3
1996	57.8	53.9
<b>Unemployment rates</b>		
Males 1986	12.4	12.4
1996	11.4	14.0
Females 1986	14.4	15.2
1996	10.4	12.8

		Faster Growth	Slower Growth
Self-employment			
1986 (% of experienced labour force)		8.9	8.3
Percent Change from 1986 - 1996		111.8	74.6
Employment by Industry			
Primary	1986 (%)	13.5	15.4
	% change 1986-1996	2.2	(14.7)
Manufacturing	1986 (%)	16.0	17.1
	% change 1986-1996	9.7	(13.8)
Construction	1986 (%)	6.8	6.0
	% change 1986-1996	29.5	(1.1)
Transport, comm., storage & utilities	1986 (%)	7.3	6.9
	% change 1986-1996	18.7	(0.5)
Wholesale and retail	1986 (%)	16.2	15.9
	% change 1986-1996	27.1	5.2
Business & other services	1986 (%)	31.1	32.9
	% change 1986-1996	19.8	43.3
Government services	1986 (%)	7.3	7.3
	% change 1986-1996	2.3	(18.9)
Employment by occupation, % change 1986-96			
Management		18.1	(6.8)
Business, finance and administration		29.1	2.8
Science, education, government, culture		0.8	(28.7)
Health		29.6	13.4
Sales and services		49.3	25.2
Trade, transportation, and equipment		80.4	57.3
Primary		4.4	(13.7)
Processing		(24.0)	(34.8)

	Faster Growth	Slower Growth
Average Employment Income		
Males worked full year, full-time		
% change 1986-1996	26.0	42.3
1996 (\$)	37,833	34,880
Males worked part year, or part-time		
% change 1986-1996	41.0	39.6
1996 (\$)	17,918	16,414
Females worked full year, full-time		
% change 1986-1996	45.4	40.3
1996 (\$)	25,799	23,728
Females worked part year, or part-time		
% change 1986-1996	60.8	58.7
1996 (\$)	11,049	10,198
Incidence of low income, economic Families,		
1986	14.2	15.9
1996	12.7	14.1

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Note: Faster growing regions are those that increased employment by more than 13.95% from 1986 to 1996, the employment growth for all rural areas. Slower growing regions increased employment by less than 13.95%.

**Table A6. Fastest Growing Twenty and Slowest Growing Twenty Rural Areas**

	Top Twenty	Bottom Twenty
<b>Median Population</b>		
1986	40,625	25,842
1996	48,247	22,657
Percent change	18.8	(12.3)
Percent adjacent to CMA	30.0	5.0
Percent with CA	50.0	15.0
<b>Age distribution, 1986, % of total population</b>		
0 - 24 years of age	37.6	40.5
25 - 64 years of age	49.9	48.8
65 years and over	12.5	10.7
<b>Education, 1986, % of pop. 15 and over</b>		
Less than Grade 9	14.3	27.3
Grade 9 to 13	44.0	41.0
Trade certificate/diploma, other non-univ.	26.8	21.1
University without degree	8.6	6.1
University with degree	6.3	4.5
<b>Labour force participation rates</b>		
Males 1986	74.1	73.7
1996	72.9	65.1
Females 1986	52.3	50.3
1996	60.4	52.5
<b>Unemployment rates</b>		
Males 1986	14.8	15.6
1996	11.6	20.9
Females 1986	15.7	19.6
1996	9.8	18.7

		Top Twenty	Bottom Twenty
Self-employment			
1986 (% of experienced labour force)		8.9	10.6
Percent change 1986 - 1996		179.5	15.1
Employment by Industry			
Primary	1986 (%)	14.0	17.3
	% change 1986 - 1996	10.5	(26.1)
Manufacturing	1986	10.9	18.9
	% change 1986 - 1996	27.7	(29.8)
Construction	1986 (%)	7.1	6.2
	% change 1986 - 1996	80.2	(20.5)
Transport, comm., storage & utilities	1986 (%)	7.5	7.0
	% change 1986 - 1996	28.3	13.5
Wholesale and retail	1986 (%)	16.6	15.7
	% change 1986 - 1996	47.9	(8.4)
Business and other services	1986 (%)	36.4	27.6
	% change 1986 - 1996	68.1	12.3
Government services	1986 (%)	7.4	6.8
	% change 1986 - 1996	28.1	(33.9)
Employment by occupation, % change 1986-96			
Management		50.1	(20.9)
Business, finance and administration		55.8	(15.1)
Science, education, government, culture		27.1	(62.0)
Health		51.9	6.2
Sales and services		70.4	12.6
Trade, transportation, and equipment		113.3	159.0
Primary		12.2	(24.0)
Processing		(27.7)	(37.0)

	Top Twenty	Bottom Twenty
Average employment income		
Males worked full year, full-time		
% change 1986-1996	38.0	39.5
1996 (\$)	38,618	35,704
Males worked part year or part-time		
% change 1986-1996	40.3	36.0
1996 (\$)	19,115	15,983
Females worked full year, full-time		
% change 1986-1996	48.6	32.1
1996 (\$)	27,530	23,761
Females worked part year or part-time		
% change 1986-1996	65.3	55.8
1996 (\$)	12,109	9,767
Incidence of low Income, economic families		
1986	14.8	17.4
1996	12.8	15.2
Distribution of selected regions		
Atlantic provinces	0	8
Quebec	1	3
Ontario	0	2
Prairie provinces	4	6
British Columbia	14	1
Yukon & Northwest Territories	1	0

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