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A New Approach to Non-CMA/CA Areas

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ABSTRACT

A New Approach to Non-CMA/CA Areas

Non-metropolitan areas in Canada are often simply referred as rural Canada, without enough attention paid to their inner differences. The Metropolitan Influence Zones (MIZ) conceptual framework allows us to divide non-metropolitan areas into No Metropolitan Influence Zone (No MIZ), Weak Metropolitan Influence Zone (Weak MIZ), and Moderate Metropolitan Influence Zone (Moderate MIZ), according to the commuting flows to and from metropolitan areas. Analyses on New Brunswick show that the non-metropolitan population are economically disadvantaged overall compared to metropolitan population. However, there are substantial differences within non-metropolitan areas. Population in the No Metropolitan Influence Zone do not appear to be the most disadvantaged economically. In so far as the No Metropolitan Zone may be regarded as the most rural, this casts doubt on the conventional wisdom regarding "rural" as the synonym of socio-economic disadvantage. In fact, the urban population in the No Metropolitan Influence Zone is shown to be the most disadvantaged economically.

The pattern in Saskatchewan is quite different from New Brunswick. In general, median family income decreases, unemployment rate and incidence of low income families increase as the influence of metropolitan areas decreases. Together with the findings concerning New Brunswick, it is clear that non-metropolitan Canada is anything but homogeneous. More research is needed to bring out this diversity so that social policies can be better tailored to the needs of non-metropolitan Canadian population.

Introduction

Researchers have complained that their studies of rural issues have been hampered by the "undifferentiated use of 'rural' in a research context." (Hoggart, 1990, p245-257) This paper presents a method of differentiating non-metropolitan areas (often considered rural areas), and illustrates how theoretical constructs develop from geographical structures.[1]

This paper discusses the economic and demographic characteristics of the population in metropolitan influence zones (MIZs). The analytical thrust is to weigh whether or not the MIZs revealed or highlighted characteristics that might otherwise be overlooked using another geographic framework. The analysis does not simply profile New Brunswick, but highlights information previously hidden.

Metropolitan Influence Zones (MIZs)

The approach taken to creating the Metropolitan Influence Zones (MIZ) is an extension of the delineation methodology for census metropolitan areas (CMAs) and census agglomerations (CAs), or metropolitan Canada. Through this paper the preliminary metropolitan influence zones are being offered for discussion. MIZs show promise of being an important new approach to non-metropolitan Canada.

Delineating MIZs

A **CMA/CA** is a large urban area, together with adjacent urban and rural areas which have a high degree of economic and social integration with that urban area. CMAs and CAs are defined around urban areas that have attained certain population thresholds: 100,000 for CMAs and 10,000 for CAs.

Urban areas are determined by a combination of population density (400 per square kilometre), population threshold (1,000) and, to a limited degree, land usage and proximity to another urban area (joined by a road link of less than 2 kilometres). All territory lying outside urban areas is considered **rural**.

The commuting flows, or the percentage of the employed labour force living in a municipality and working in the urban core of any CMA/CA, were combined for delineating the MIZs. Thus, in contrast to CMA/CA delineation, the MIZs do not represent the extent of the metropolitan influence of any individual urban core, but rather recognize multiple centres of attraction.

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[1] "If the areal units or zones are arbitrary and modifiable then the value of any work based upon them must be in some doubt and may not possess any validity independent of the units being studied." (Openshaw, 1984, p4)

The following commuting flow thresholds were arrived at:

Moderate MIZ	**commuting flow greater or equal to 20%**
Weak MIZ	**commuting flow between 0.1% and 20%**
No MIZ	**no commuting flow**

The results for New Brunswick with the refined thresholds are shown in Map 1.
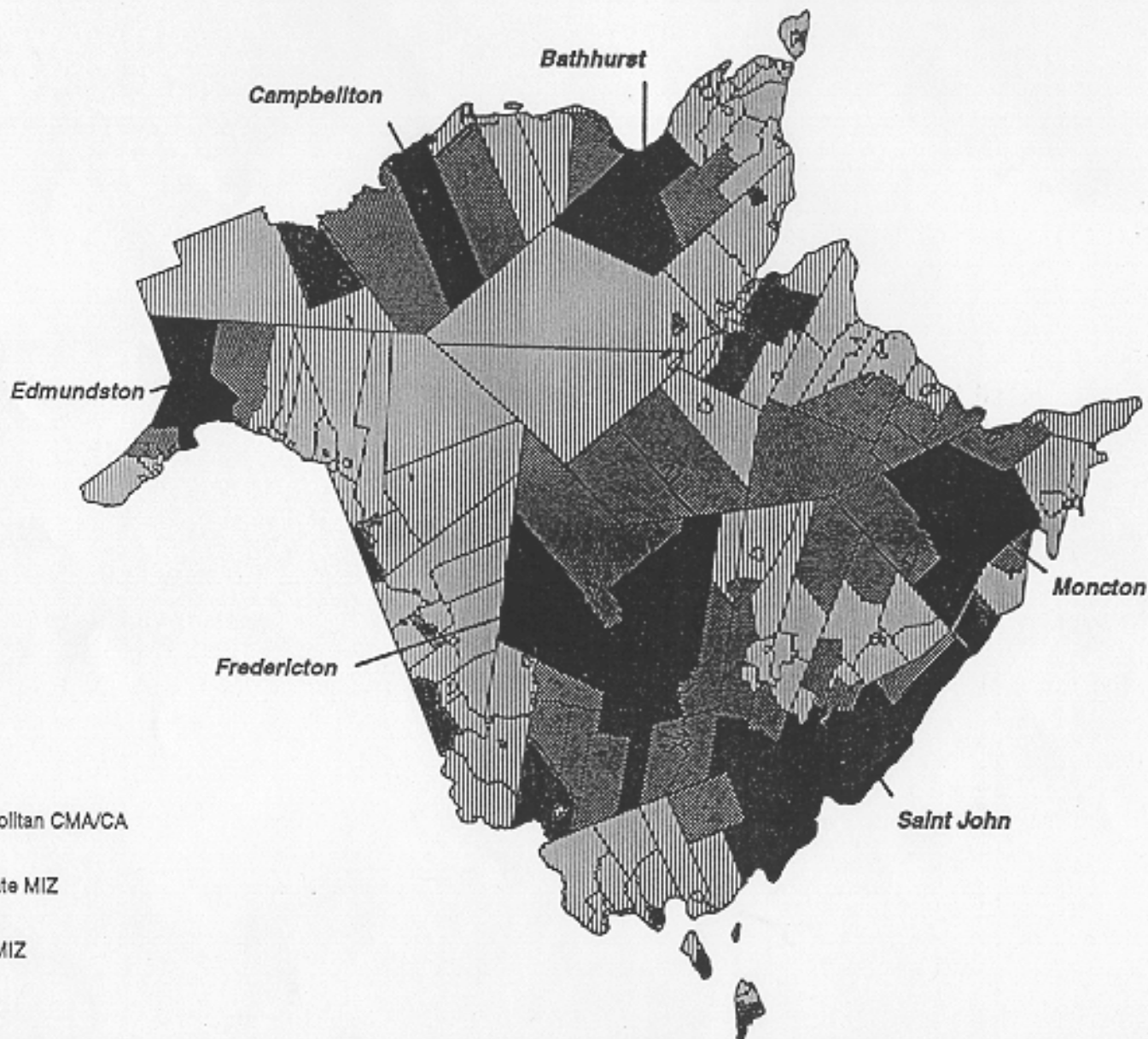
Figure 1 Metropolitan Influence Zones Structure
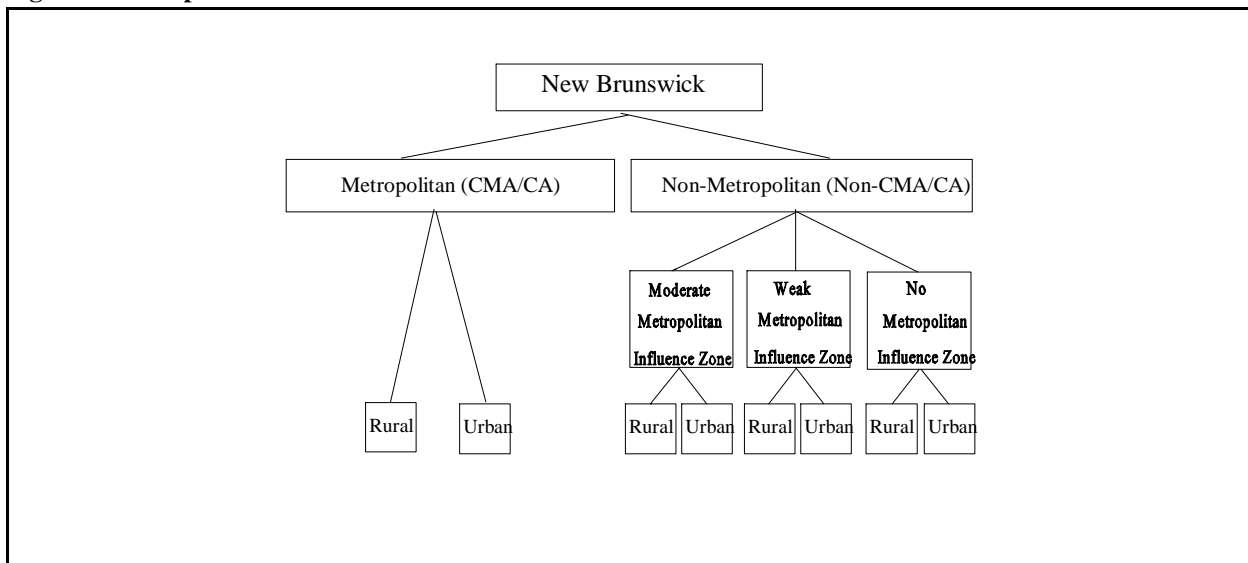
Once MIZs were created a preliminary review of the characteristics of each zone was conducted. This analysis required a custom tabulation of 1991 Census data for each of the zones. Resulting from the review was a cross-classification of MIZs by urban/rural for selected characteristics - median income, low income incidence, labour force participation rate, unemployment rate, family size, children per 1000 ever-married females, and employment by industry. Figure 1 illustrates the structure of MIZs with urban/rural cross classification.

The working hypothesis of this study was that zones with a stronger metropolitan influence would exhibit higher median family income, lower unemployment, higher labour force participation and higher level of education. Zones with less metropolitan influence should exhibit the opposite effects, as well as, larger family size. The results for New Brunswick were not as strikingly

Metropolitan Influence Zones: New Brunswick

Campbellton

Bathhurst

Edmundston

Moncton

Fredericton

Saint John

Legend:
- Metropolitan CMA/CA
- Moderate MIZ
- Weak MIZ
- No MIZ

conclusive as was hoped, although some of our hypotheses were valid. However, a brief investigation into Saskatchewan revealed the validity of considerably more of our working assumptions.

Results

Although New Brunswick is one of the founding provinces of Canada, it is not one of the largest physically or in population. The province is perhaps best known for its landscape, its dependence on natural resources and its bilingualism. Its people are not wealthy in comparison to those of Ontario or Quebec; the province has ranked 8th in per capita gross domestic product over the past 15 years. The provincial median total income for 1990 at $14,877 is almost $4,000 less than the national median total income of $18,832.[2]

New Brunswick's Metropolitan Zone is composed of one census metropolitan area: Saint John (principally began as a port city) and five census agglomerations in order of population size: Moncton (began as a railroad town); Fredericton (provincial capital); Bathurst (mining and pulp and paper); Edmundston (pulp and paper); and Campbellton (pulp and paper).

There are a few large enterprises located outside the Metropolitan Zone, showing that economic activity is not solely concentrated in metropolitan locales. Higher levels of education, income and labour force participation rates and lower unemployment rates are to be expected in these zones.[3]
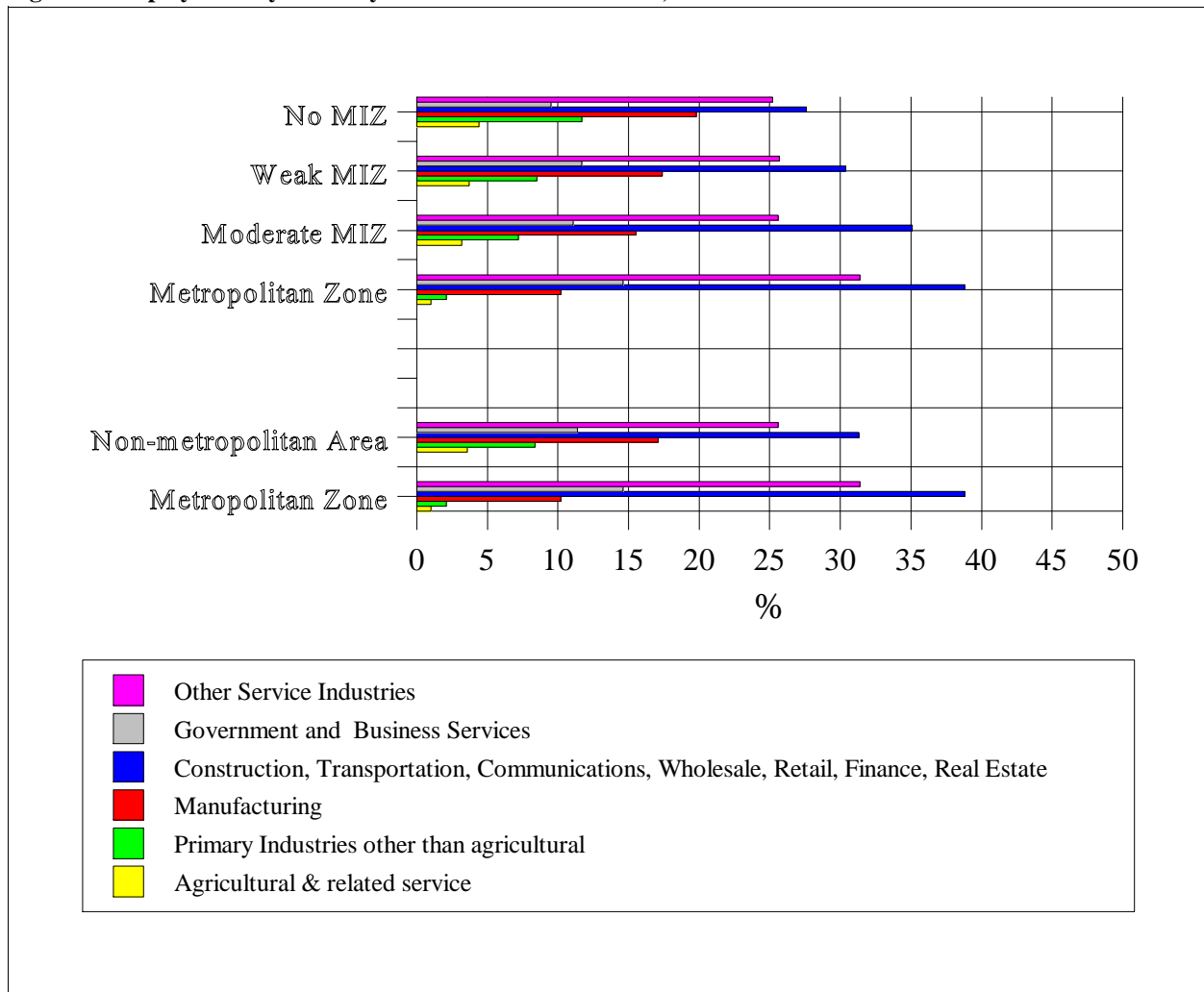
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[2] Total income includes employment income, government transfer payments, investment income and other income.

[3]One example is McCain Foods. Their head office is located in Florenceville, which is not a component of a CMA or CA.

Figure 2 Employment by Industry for New Brunswick MIZs, 1991

The industrial composition of metropolitan New Brunswick is of a service and professional nature. Non-metropolitan New Brunswick, although still service-oriented, has an industrial composition that is more concentrated in primary and manufacturing activities. Figure 2 shows that the stronger the metropolitan influence, the less the share of employment in primary industries and in manufacturing. Although it was previously known that the smaller urban areas (non-metropolitan) have a high employment concentration in manufacturing, at around 16%, the difference was accentuated within the MIZ hierarchy reaching almost 20% for the No MIZ.

Figure 3   Employment by Industry for New Brunswick MIZs cross classified with urban/rural, 1991
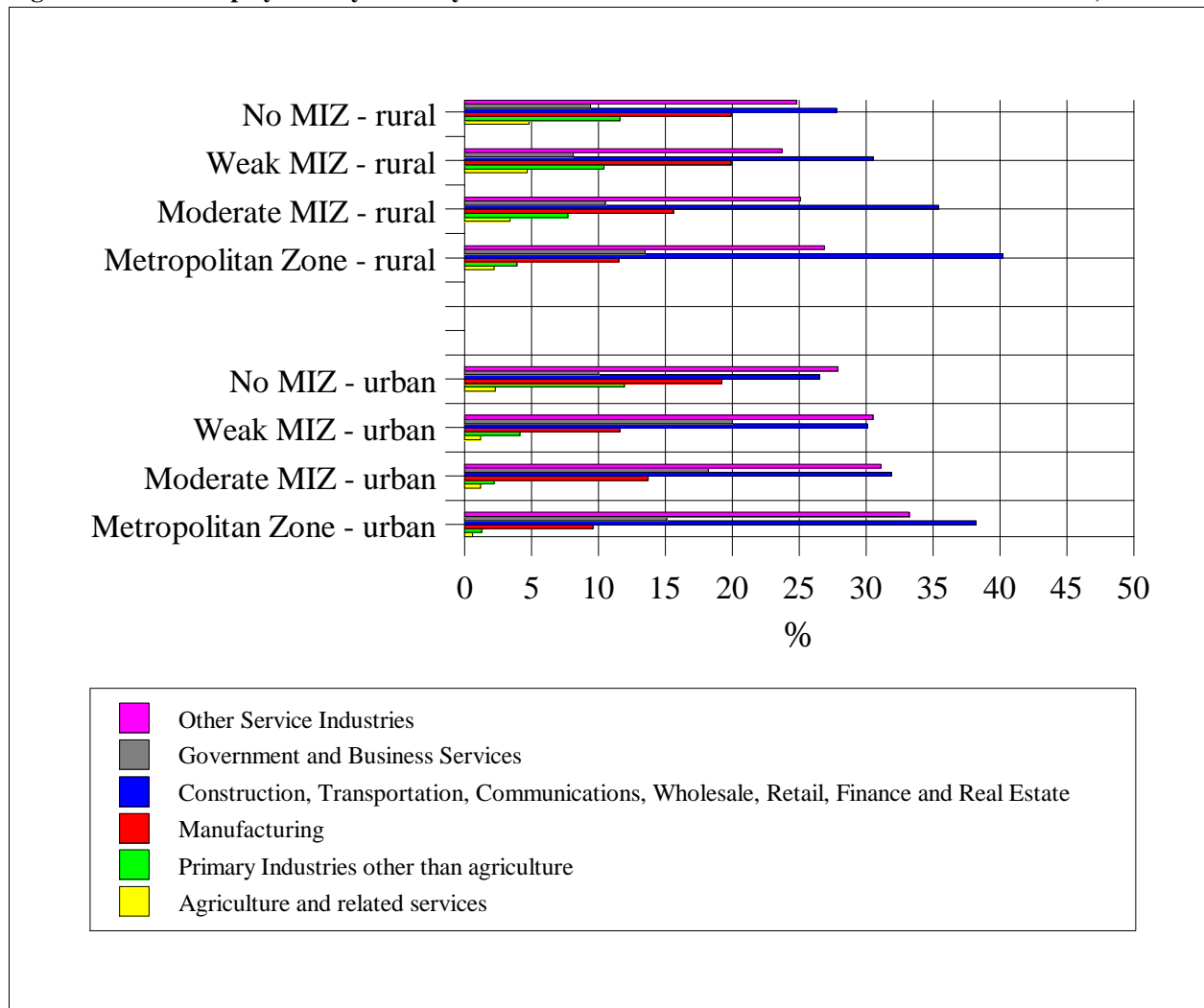
Figure 3 shows the substantial difference between the employment concentrations by industry, by MIZ cross classified with urban and rural. The concentration in primary and manufacturing industries is stronger in rural New Brunswick within each of the zones of influence, with one exception: the share of employment is stronger in the urban part of the No MIZ for primary industries other than agriculture. Also, the urban parts have a higher concentration for both government and business services industries and other service industries regardless of MIZ.

Figure 4   **Unemployment Rate and Labour Force Participation Rates for New Brunswick MIZs, 1991**

Figure 4 shows that, as expected, the metropolitan unemployment rate is substantially lower than the non-metropolitan rate for those 25 years and over, and that the metropolitan labour force participation rate of the same population is somewhat higher than the non-metropolitan rate. Also, there is a great deal of uniformity within the non-metropolitan area for both labour force participation rate and unemployment rate.
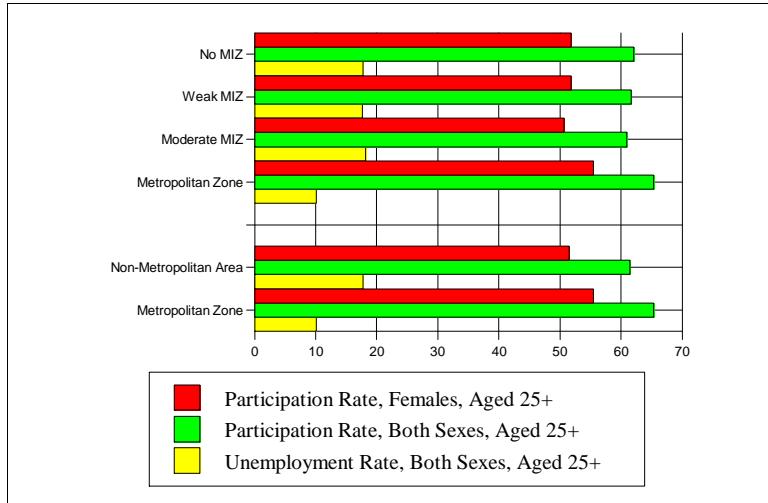
However, Figure 5 shows considerable variation in the unemployment rate for those 25 years and over within each of the MIZs when urban and rural are cross-classified. Rural always has higher unemployment rates, with the exception of the No MIZ.

There is some variation in the labour force participation rate when the urban and rural are cross-classified. Within the Metro Zone and the No MIZ the rural areas have the higher labour force participation rate. For the Moderate MIZ and Weak MIZ the difference between urban and rural is minimal. As expected, the

Figure 5   **Unemployment Rate and Labour Force Participation Rates for New Brunswick MIZs, cross classified with urban/rural, 1991**

labour force participation rate for females aged 25 years and over follows the same pattern as the general population.

8

Figure 6 **Median Family Income for New Brunswick MIZs, 1991**
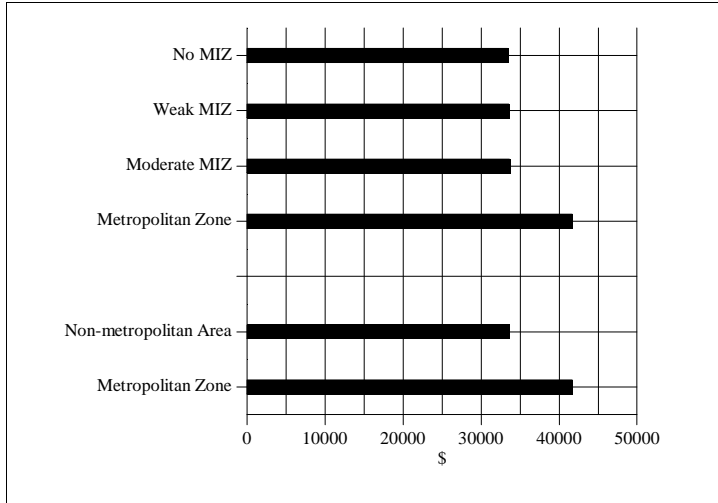
Median family income is a good economic indicator, and upon examination, it was discovered that the metropolitan median family income is substantially higher ($41,651) than non-metropolitan ($33,559).[4]

A review of the MIZs in Figure 6 found that the non-metropolitan areas are basically the same, and as stated earlier, the metropolitan zone has the highest median family income.

Figure 7 shows that the urban median income is always higher within all the MIZs. The largest differences in urban and rural median income are within the Moderate and Weak MIZs - a difference of approximately $4,000. The difference between rural and urban median incomes is minimal for the No MIZ and Metro Zone - less than $1,000. This may be because the No MIZ is composed of a few municipalities that are centres of industry and these make the No MIZ similar economically to the Metro Zone. This cross classification system proves itself invaluable in this case because it has highlighted differing urban rural trends by MIZ.

Figure 7 **Median Family Income for New Brunswick MIZs, cross classified with urban/rural, 1991**

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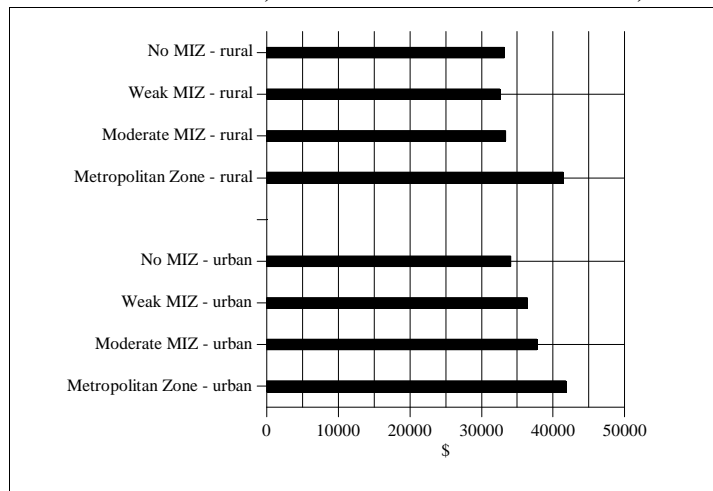
[4]The median income was calculated based upon a standard method of determining medians when only categorical data is available.

9

Figure 8   **Incidence of Low Income in all economic families for New Brunswick MIZs, 1991**
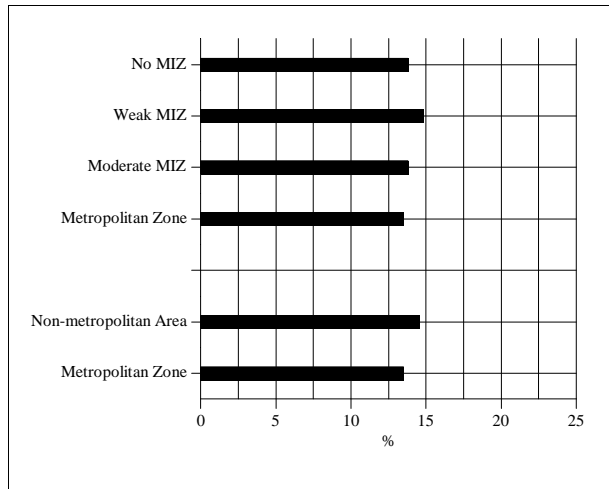
Figure 9   **Incidence of Low Income in all economic families for New Brunswick MIZs cross classified with urban/rural, 1991**

Incidence of low income within economic families is another good economic indicator. Metropolitan low income incidence is slightly lower (13.5%) than non-metropolitan (14.5%).

When the MIZs were examined it was revealed that the stronger the metropolitan influence the lower the incidence of low income, with the exception of the No MIZ where the incidence of low income is the same as the Moderate MIZ. The largest difference in incidence of low income is between the Weak MIZ and the Metropolitan Zone.
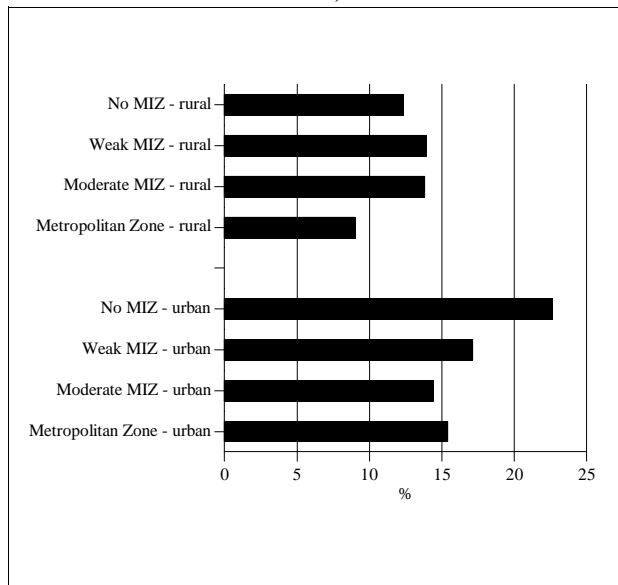
The incidence of urban low income is always higher than rural low income, within all the MIZs. There is a large difference between urban and rural low income incidence within the No MIZ - approximately 10 percentage points higher for the urban part. Another large difference was within the Metropolitan Zone - approximately 6.4 percentage points higher for the urban portion. It is apparent that the No MIZ often shares the characteristics of a large metropolis, perhaps due to its industrial composition. The differences between urban and rural are much less in the Moderate MIZ and Weak MIZ. This is the converse of the median income pattern. Brown and Hirschl (1995, p44) note that "poverty is geographically concentrated in central cities of large metropolises, and in small towns and rural areas." The metropolitan influence zones seem to conform to this pattern, with the exception that the pattern blurs within the moderate and weak metropolitan influence zones.

10

Figure 10   **Children born per 1000 ever married females aged 15+ for New Brunswick MIZs, 1991**
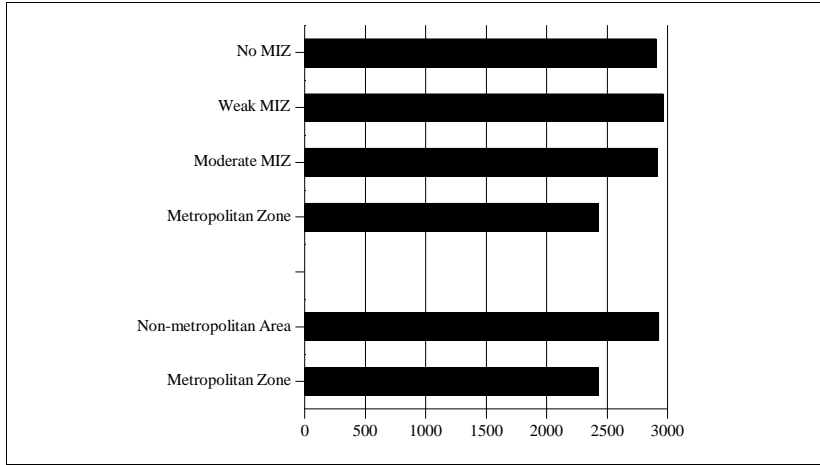
Two demographic characteristics that are related to the economic situation are fertility and family size. Becker introduced an economic analysis of fertility. He theorized that those in the higher economic strata would be predisposed to having smaller families.[5] Children born per one thousand ever-married females is a measure of fertility, and Figure 10 shows considerably lower fertility in the metropolitan locales compared to the non-metropolitan locales. This fits into Becker's theory - metropolitan zone median income is higher than the non-metropolitan. When the zones of influence geography was applied, the relationship between economics and fertility was confirmed. The number of children born per one thousand females is very similar for all of the zones other than the Metropolitan Zone, as was shown with median income.

Family size was grouped into three categories: no children, 1 to 3 children, and 4 or more children. The non-metropolitan percentage of 4 or more children families is higher (27.4) than metropolitan (20.3). There is conversely a higher percentage of metropolitan no children families (16.0%) compared to non-metropolitan (12.5%). This conforms to Becker's theory.

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[5] " In the higher economic strata the expectations for the children are presumed to be greater, possibly in terms of money and especially in terms of time spent on each child. Parents in the higher economic strata also are exposed to a greater number of opportunities to buy goods and engage in time-consuming activities. Thus to produce the kind of child desired, the number must be limited." (Becker, G. 1960 "An economic analysis of fertility" In <u>National Bureau of Economic Research, Demographic and Economic Change in Developed Countries</u>, Princeton, NJ: Princeton University Press.)

Figure 11 shows that the difference within the non-metropolitan areas is very small for the family size characteristic. This again appears to confirm Becker's theory.

Many of the characteristics did not reveal the disadvantaged 'rural' pattern that is perceived by the media and by the public. An additional characteristic was examined with the intention of verifying that the general perception did hold true for 'rural' New Brunswick. The characteristic examined was the ratio of those with occupations in medicine and health to the total population. There has been widespread reporting of the shortage of doctors in rural Canada (see for example, "Incentives recommended to lure MD to rural areas", Janice Tibbetts, Halifax Chronicle Herald, April 17, 1993, page A5). This appears to be reality in New Brunswick as well. Figure 12 shows the significantly higher ratio of persons with occupations in medicine and health in the Metropolitan Zone (3.19 to every 100 persons) compared to any other zone (ranges from 1.90 in the No MIZ to 2.08 in the Weak MIZ).

Figure 11   **Family Size for New Brunswick MIZs, 1991**
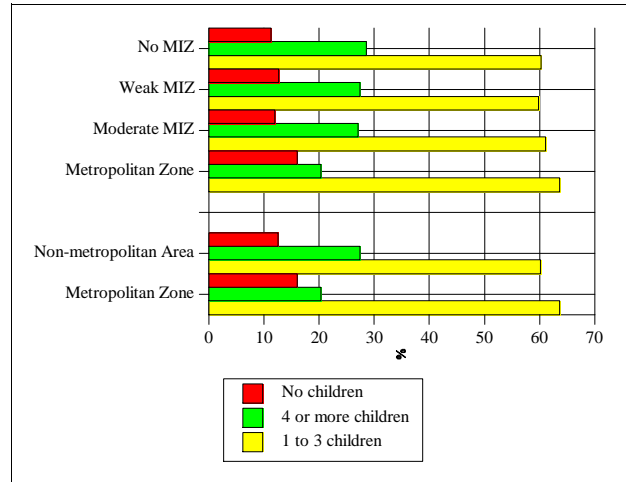
Figure 12   **Persons with occupations in health and medicine per 100 population for New Brunswick MIZs, 1991**
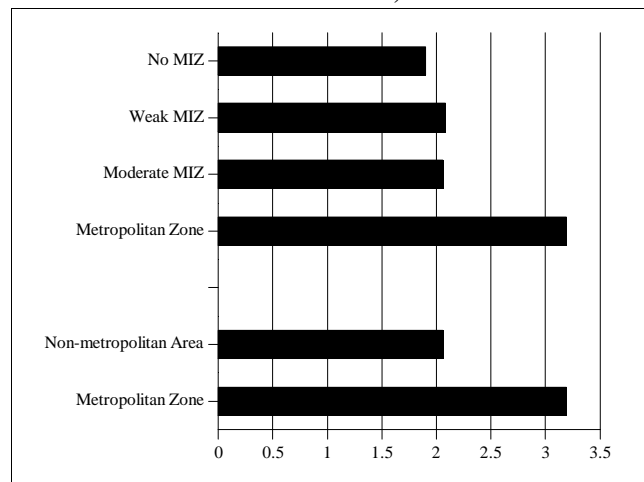
Figure 13 shows that there is no consistency in the pattern with the urban and rural cross-classification. The urban Metro Zone has the highest ratio (3.33 to every 100 persons), whereas the urban No MIZ has the lowest ratio (1.48 to every 100 persons). This only adds to the disadvantaged status of the urban No MIZ.

Figure 13 **Persons with occupations in health and medicine per 100 population for New Brunswick MIZs, cross classified with urban/rural, 1991**
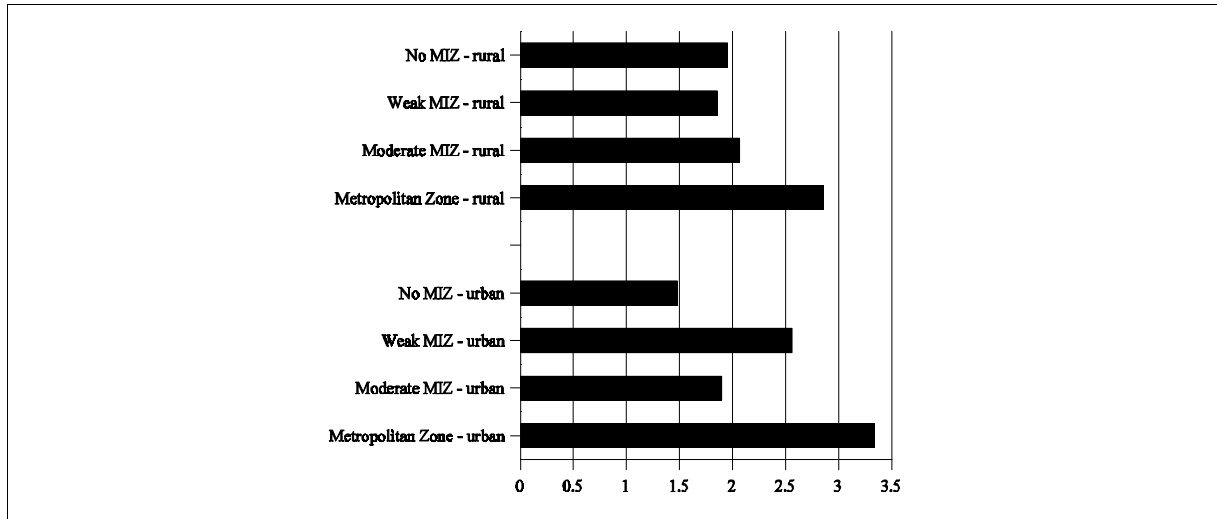
Discussion

A surprising result of the analysis was that using just MIZs, the No MIZ population does not conclusively appear to be the most disadvantaged economically. The Moderate MIZ population has the lowest unemployment rate and the lowest labour force participation rate. The Weak MIZ population has the highest incidence of low income and the No MIZ population has the lowest median income.

It is only when data for the MIZs are cross-classified by urban/rural areas that the area with the most economic disadvantages comes to light. The urban population of the No MIZ has the highest unemployment rate, the highest incidence of low income, and the lowest labour force participation rate. The median income is only $1,500 higher than the lowest median income, which is in the Weak MIZ at $32,559.

The age structure of New Brunswick by MIZ cross classified with urban/rural areas is very similar (see Appendix A). Yet the economic differences are highly visible. The No MIZ does not always

13

follow the same pattern as the other MIZs. As the metropolitan influence decreases all the characteristics for the MIZs either increase or decrease with the exception of the No MIZ, in many cases. This may be a result of the effect of areas of economic activity in this zone (for example, McCain's). There are differences in the economic and demographic characteristics that are brought out by using the cross classification of urban/rural geographic areas.

A brief review of Saskatchewan was undertaken to verify if the working assumptions for MIZs would be upheld in another province.

Figure 14: **Median Family Income for Saskatchewan MIZs, 1991**

Figure 15 **Incidence of low income in all economic families for Saskatchewan MIZs, 1991**

A Brief Review of Saskatchewan MIZs
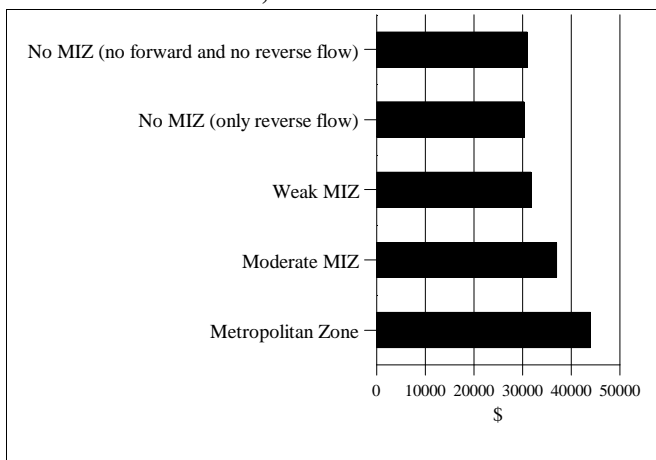
In Saskatchewan, the No MIZ was divided to isolate those municipalities that had no commuting flows to or from any urban core. This was to assess the effect of the metropolitan influence more precisely for the No MIZ.

Figure 14 shows the median family income in Saskatchewan. A pattern is revealed where increased metropolitan influence results in increased median family income, for all MIZs, except the No MIZs (no forward and no reverse commuting flow). This may represent a few isolated centres of natural resource extraction that require employees with a set of specialized skills resulting in higher incomes.

Another variable that was examined to determine if data analyzed using the MIZ structure revealed the underlying assumptions of this study was incidence of low income in economic families. Figure 15 shows that this characteristic meets the working assumptions to some degree in all zones, except the No MIZs and Metropolitan Zone.

14

When the MIZ was cross classified with the urban/rural scheme it was revealed that the rural parts always have the higher incidence of low income, except in the urban part of the Metropolitan Zone. This is shown in Figure 16.

Figure 16 **Incidence of low income in all economic families in Saskatchewan MIZs, cross classified with urban/rural, 1991**
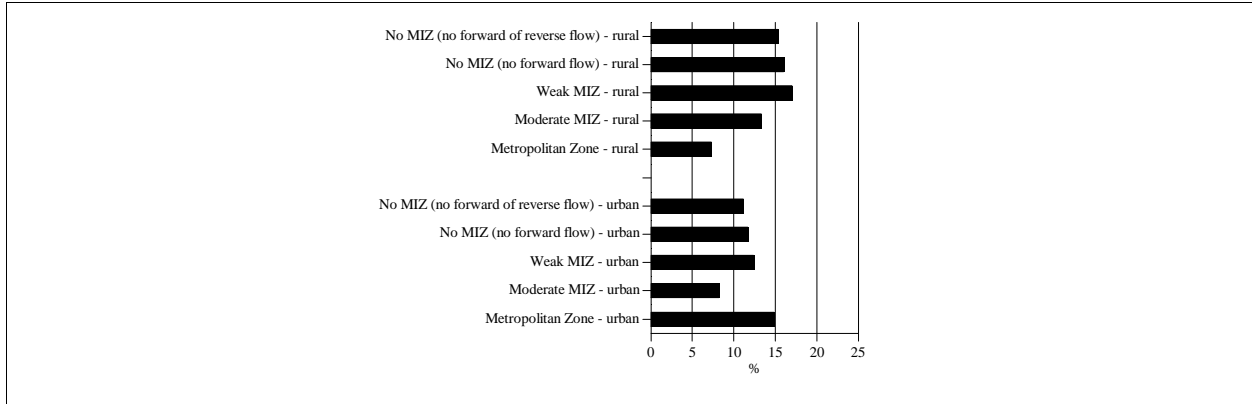
The very high unemployment rate in the urban cores of the Metropolitan Zone, which is illustrated in Figure 18, are responsible for the high unemployment rate in the metropolitan zone, which is shown in Figure 17.   Interestingly, Figure 17 also shows that for all zones other than the metropolitan, the unemployment rate increases as metropolitan influence decreases.

Figure 17 **Unemployment Rate for both sexes aged 25+, for Saskatchewan MIZs, 1991**

15
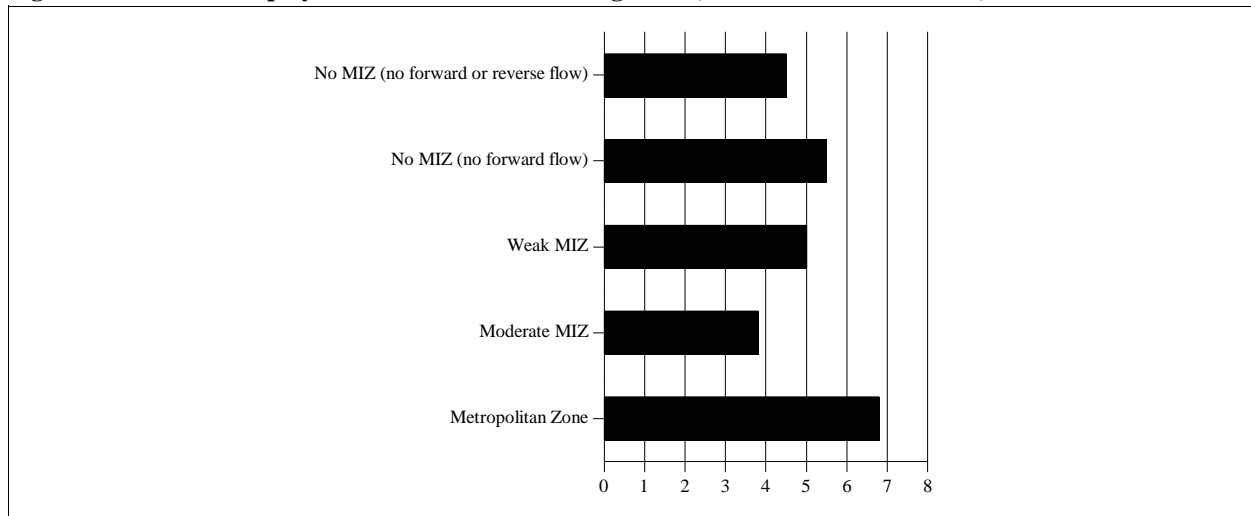
Figure 18   Unemployment Rate, both sexes aged 25+, for Saskatchewan MIZs, cross classified with urban/rural, 1991
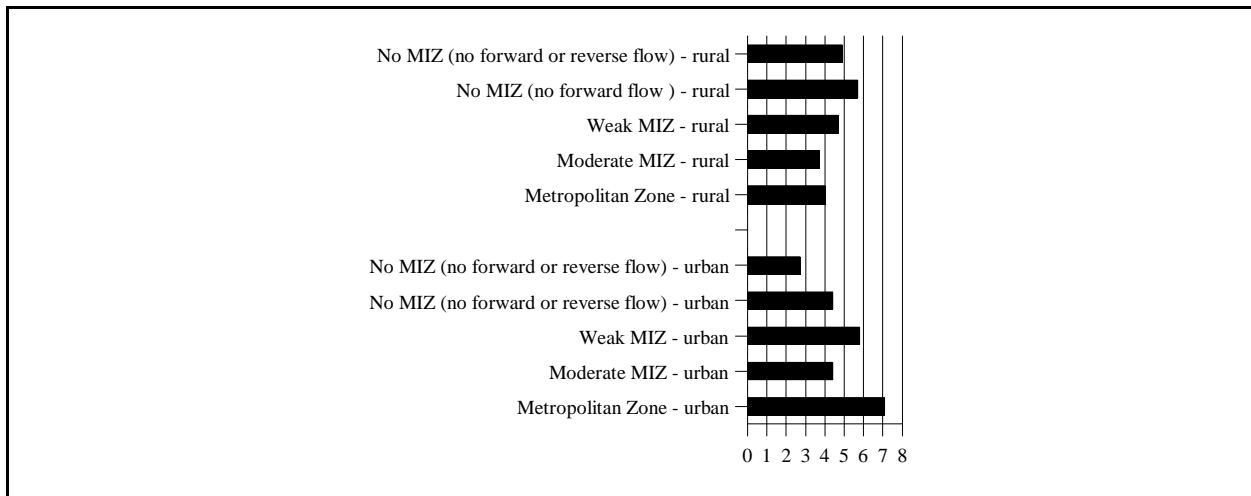
Figure 19 shows that labour force participation rates tend to drop with a lessening in metropolitan influence, with the exception of the Moderate MIZ. Figure 20 shows that labour force participation rates are always higher in rural areas.

Figure 19   Labour Force Participation Rates for Saskatchewan MIZ, 1991
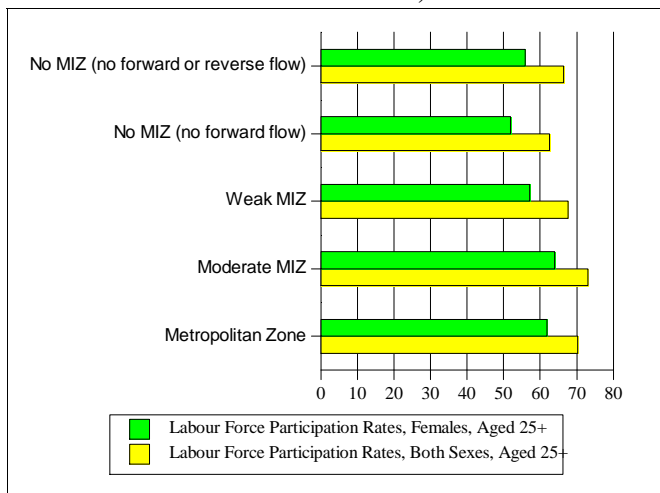
Figure 20   Labour Force Participation Rates for Saskatchewan MIZ, cross classified with urban/rural, 1991

16
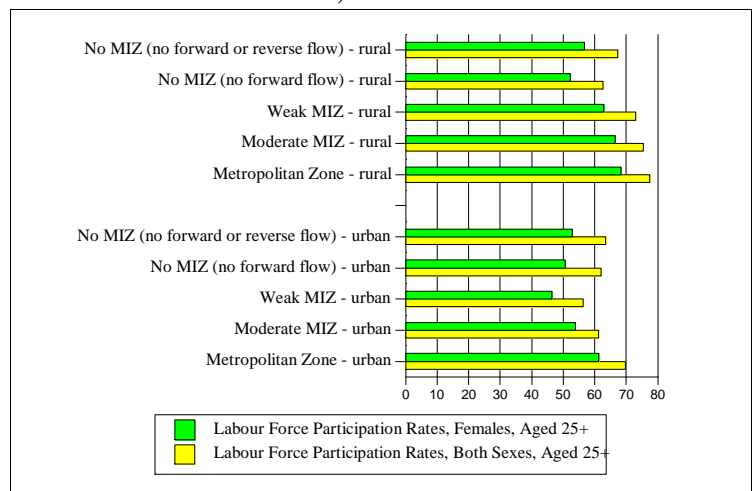
Conclusion

These data dispute the common perception that all 'rural' Canada is in a disadvantaged state economically. Using MIZ geographic framework, cross classified with urban/rural areas, the data illustrate very clearly that differences in 'rural' depend on the influence of the metropolitan zone.

Although the working assumptions are not fully substantiated, data analyzed using the MIZ geographic framework further illustrates the economic structural differences between New Brunswick and Saskatchewan. These differences show that non-metropolitan Canada, or 'rural' Canada as it is often referred to, is diverse and encompasses varying economic structures between provinces studied, and often within these provinces. The MIZ structure combined with urban/rural shows this diversity.

The cross classification of urban/rural areas with MIZs provides a framework for data analysis that gives more detailed and accurate results than the metro/non-metropolitan classification even when cross-classified with urban/rural areas. The combined MIZ and urban/rural framework is able to present data that identifies those exceptional cases where a zone does not follow the same urban/rural trend as other zones. In many cases this is the suspected result of large enterprises located in a 'remote' area. Use of this framework enables a researcher to avoid the trap of assuming that areas farther from a large metropolis, which generally have no commuting flows, are economically disadvantaged. The exceptions to this assumption are pointed out by the data. As Openshaw (1984, p4) postulates, the data are only as good as the underlying geographic framework.

Future Research

Some considerations for future research are to review the threshold for the forward commuting flow limits that determine the Moderate MIZ and Weak MIZ. These minimum limits could be raised to 25% for the Moderate MIZ and to 5% for the Weak MIZ. Those municipalities that have forward commuting flows less than 5% could be included in the No MIZ. This restructuring of the thresholds would accomplish two goals; it would show stronger metropolitan influence within both the Moderate MIZ and the Weak MIZ, and it would provide a method to deal with the low population municipalities, which are for the most part within the No MIZ.

Another consideration is to control for those No MIZ municipalities that have large enterprises. This could be achieved through an experiment whereby the data would be extracted in two ways, with and without those municipalities with large enterprises. These two databases could be compared and a finding made about the extent of influence of these large enterprise municipalities on the No MIZ.

Concepts and Definitions

Census Metropolitan Areas and Census Agglomerations:

A CMA/CA is delineated using census subdivisions (CSDs) as building blocks. These CSDs are included in the CMA/CA under at least one of the following rules. The rules are ranked in order of priority. A CSD obeying the rules for two or more CMA/CAs is included in the one for which it has the highest ranked rule. If the CSD meets rules that have the same rank, the decision is based on the number of commuters involved.

1. **The urban core rule:** The CSD falls completely or partly inside the urban core or is enclosed by a CSD that is at least partly within the urban core. Those CSDs that are holes within a CSD are called core holes and must be included for spatial contiguity reasons.

2. **The forward commuting flow rule:** At least 50% (a minimum of 100 commuters) of the employed labour force living in the CSD work in the urban core as determined from commuting data based on the place of work question in the 1991 Census.

3. **The reverse commuting flow rule:** At least 25% (a minimum of 100 commuters) of the employed labour force working in the CSD live in the urban core as determined from commuting data based on the place of work question in the 1991 Census.

4. **The spatial contiguity rule:** Where necessary to maintain spatial contiguity, CSDs that do not meet a commuting flow threshold may be included in a CMA/CA, and CSDs that do meet a commuting flow threshold may be excluded from a CMA/CA.

   There are two situations which can lead to inclusion or exclusion of a CSD in a CMA or CA for reasons of spatial contiguity. Specifically these are:

   Hole - a CSD with insufficient commuting flows (either forward or reverse) is enclosed by a CSD adjacent to the CMA/CA with sufficient commuting flows. When this situation arises, the commuting flows of all CSDs within and including the enclosing CSD are added together to create one unit. If the entire unit has sufficient commuting flows (either forward or reverse) then all of the CSDs are included in the CMA/CA.

Outlier - a CSD with sufficient commuting flows (either forward or reverse) is enclosed by a CSD adjacent to the CMA/CA with insufficient commuting flows. As with the treatment of holes, when this situation arises, the commuting flows of all CSDs within and including the enclosing CSD are added together to create one unit. If the entire unit has sufficient commuting flows (either forward or reverse) then all of the CSDs are included in the CMA/CA. Conversely, if the entire unit has insufficient commuting flows (either forward or reverse), then all of the CSDs are excluded from the CMA/CA.

5. **The historical comparability rule:** To maintain the historical comparability of a **CMA or CA that is census tracted**, CSDs are retained even if their commuting flow percentages fall below the commuting flow thresholds (rules 2 and 3).

Finally, manual adjustments to the above criteria may sometimes be made in order to achieve the goal of CMA/CA delineation. This goal is to support the general concept of a CMA/CA (a socially and economically integrated area) by producing CMA/CAs composed of as many CSDs meeting at least one commuting flow threshold, and as few CSDs that do not meet even one commuting flow threshold, as possible. (Statistics Canada, 1995, Draft 1996 Census Dictionary)

Census Subdivision (CSD):
Refers to the general term applying to municipalities (as determined by provincial legislation) or their equivalent, e.g. Indian reserves, Indian settlements and unorganized territories. (Statistics Canada, 1991 Census Dictionary, p184)

Census Tract (CT):
The general concept of a census tract (CT) is that of a permanent, small urban neighbourhood-like or rural community-like area established in large urban-centred regions with the help of local specialists interested in urban and social science research. (Statistics Canada, 1991 Census Dictionary, p185)

CMA/CA Parts:
The concept of CMA/CA parts distinguished between central and peripheral urban and rural areas within a census metropolitan area (CMA) or a census agglomeration (CA). There are three CMA/CA parts: urbanized core, urban fringe and rural fringe.

Urbanized core:	A large urban area around which a CMA or a CA is delineated. The urbanized core must have a population (based on the previous census) of at least 100,000 in the case of a CMA, or between 10,000 and 99,999 in the case of a CA.
Urbanized fringe:	All urban area within a CMA or CA, but outside the urbanized core.
Rural fringe:	All territory within a CMA or CA lying outside urban areas. (Statistics Canada, 1991 Census Dictionary, p189)

Economic Families:

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. (Statistics Canada, 1991 Census Dictionary, p124)

Labour Force Participation Rate:

Refers to the total labour force (in reference week) expressed as a percentage of the population 15 years of age and over, excluding institutional residents.   (Statistics Canada, 1991 Census Dictionary, p71)

Metropolitan Zones of Influence:

Metro Zone:

Municipalities that are components of CMAs and CAs.

Moderate Metropolitan Influence Zone:

Municipalities that have a combined forward commuting flow of at least 20% of the employed labour force living in the municipality, to the urban cores of any CMA or CA, and are not a CMA or CA component.

Weak Metropolitan Influence Zone:

Municipalities that have a combined forward commuting flow of at least 0.01%, but less than 20%, of the employed labour force living in the municipality, to the urban cores of any CMA or CA, and are not a CMA or CA component.

No Metropolitan Influence Zone:
> Municipalities that have no forward commuting flow to any CMA or CA urban core and are not components of a CMA or CA.[6]

Total Labour Force:
> Refers to persons who were either employed or unemployed during the week prior to enumeration.   (Statistics Canada, 1991 Census Dictionary, p73)

Unemployment Rate:
> Refers to the unemployed labour force expressed as a percentage of the total labour force. (Statistics Canada, 1991 Census Dictionary, p75)

Urban (UA) and Rural:
> An area which has attained a population concentration of at least 1,000, and a population density of at least 400 per square kilometre, at the previous census. Urban areas separated by gaps of less than two kilometres are combined to form a single urban area. All territory lying outside urban areas is considered rural. Taken together, urban and rural areas cover all of Canada. (Statistics Canada, 1991 Census Dictionary, p212)

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[6] Eight municipalities changed designation during the smoothing process.

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Appendix A

Table 1   *Percentage Employment by Industry for New Brunswick MIZs, 1991*

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Agricultural and related service industries	3.6%	1.0%	3.2%	3.7%	4.4%
Primary Industries other than above *	8.4%	2.1%	7.2%	8.5%	11.7%
Manufacturing Industries	17.1%	10.2%	15.5%	17.4%	19.8%
Construction, Transportation, Communications, Wholesale, Retail, Finance & Real Estate	31.3%	38.8%	35.1%	30.4%	27.6%
Gov't & Business Services Industries	11.4%	14.6%	11.1%	11.7%	9.5%
Other Service Industries**	25.6%	31.4%	25.6%	25.7%	25.2%

Table 2   *Cross Classification of Urban and Rural with MIZs for Employment by Industry for New Brunswick, 1991*

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ	Total NB	Total NB
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Agricultural and related service industries	0.6%	2.2%	1.2%	3.4%	1.2	4.7%	2.3%	4.8%	0.7%	3.7%
Primary Industries other than above *	1.3%	3.9%	2.2%	7.7%	4.1	10.4%	11.9%	11.6%	2.0%	7.9%
Manufacturing Industries	9.6%	11.5%	13.7%	15.6%	11.6	19.9%	19.2%	19.9%	10.2%	16.5%
Construction, Transportation, Communication, Wholesale, Retail, Finance and Real Estate	38.2%	40.2%	31.9%	35.4%	30.1	30.5%	26.5%	27.8%	36.3%	34.3%
Gov't & Business Services Industries	15.1%	13.5%	18.2%	10.5%	20.0	8.1%	10.0%	9.4%	16.1%	10.3%
Other Service Industries **	33.2%	26.9%	31.1%	25.1%	30.5	23.7%	27.9%	24.8%	32.6%	25.0%

*   Fishing and trapping, logging and forestry, mining (incl.. milling), quarrying and oil wells industries
**   Education, health and social service industries

Table 3   *Unemployment and Labour Force Participation Rates, New Brunswick MIZs, 1991*

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Unemployment Rate Both Sexes, 25 yrs +	17.8	10.1	18.2	17.7	17.8
Participation Rate Both Sexes, 25 yrs +	61.5	65.3	60.9	61.7	62.1
Participation Rate Females, 25 yrs +	51.5	55.5	50.7	51.8	51.8

Table 4   *Cross Classification of Urban and Rural with MIZs for Unemployment and Labour Force Participation Rate for New Brunswick, 1991*

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ	Total NB	Total NB
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Unemployment Rate Both Sexes, 25 yrs +	9.6	11.3	15.3	18.5	12.5	19.9	22.4	17.1	10.4	16.8
Participation Rate Both Sexes, 25 yrs +	63.7	69.3	61.7	60.8	61.7	61.6	57.4	62.9	63.2	63.7
Participation Rate Females, 25 yrs +	54.3	58.6	54.8	50.4	51.8	51.8	43.4	53.3	53.7	53.5

Table 5   *Median Income for New Brunswick MIZs, 1991*

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Median Family Income	$33,559	$41,651	$33,614	$33,547	$33,427

Table 6   Median Income for New Brunswick MIZ cross classified with urban/rural, 1991

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Median Family Income	$41,795	41,367	37,767	33,327	36,418	32,559	34,074	33,195

Table 7   *Incidence of Low Income - all economic families for New Brunswick MIZs, 1991*

	Non Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Incidence of low Income	14.5	13.5	13.8	14.8	13.8

Table 8   *Cross Classification of Urban and Rural with MIZs for Low Income Incidence in Economic Families in New Brunswick, 1991*

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ	Total NB	Total NB
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Incidence of low Income	15.4	9.0	14.4	13.8	17.1	13.9	22.6	12.3	15.8	12.4

Table 9   Measures of Fertility and Family Size for New Brunswick MIZs, 1991

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Family Size:					
No Children	12.5%	16.0%	11.9%	12.7%	11.2%
1 to 3 Children	60.2%	63.6%	61.1%	59.8%	60.3%
4 or more Children	27.4%	20.3%	27.0%	27.4%	28.6%
Children born per 1,000 ever-married females, 15 yrs +	2,925	2,427	2,909	2,960	2,905

Table 10   Ratio of Persons with occupations in Health and Medicine to the Population for New Brunswick MIZs, 1991

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Ratio of Health Professionals to Population	2.06	3.19	2.06	2.08	1.90

Table 11   Cross Classification of Urban and Rural with MIZs for Ratio of Persons with occupations in Health and Medicine to the Population for New Brunswick, 1991

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ	Total NB	Total NB
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Ratio of Health Professionals to Population	3.33	2.85	1.90	2.07	2.56	1.86	1.48	1.95	3.11	2.19

Table 12   Age Structure of New Brunswick MIZs, 1991

	Non-Metro Area	Metro Zone	Moderate MIZ	Weak MIZ	No MIZ
Age Structure:					
0 - 14 Yrs	21.9%	20.4%	21.4%	22.0%	22.2%
15 - 64 Yrs	66.6%	68.3%	67.2%	66.5%	66.2%
65 Yrs +	11.5%	11.3%	11.5%	11.5%	11.6%

Table 13   Cross Classification of Urban and Rural with MIZs for Age Structure of New Brunswick, 1991

	Metro Zone	Metro Zone	Moderate MIZ	Moderate MIZ	Weak MIZ	Weak MIZ	No MIZ	No MIZ	Total NB	Total NB
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Age Structure:										
0 - 14 Yrs	19.0%	23.7%	19.2%	21.6%	20.7%	22.5%	19.2%	22.8%	19.4%	22.7%
15 - 64 Yrs	68.2%	68.6%	67.2%	67.1%	66.2%	66.6%	67.5%	65.9%	67.7%	67.3%
65 Yrs +	12.8%	7.7%	13.6%	11.2%	13.1%	10.9%	13.3%	11.3%	12.9%	10.0%

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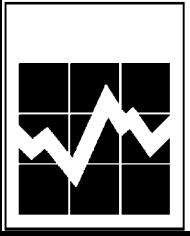
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