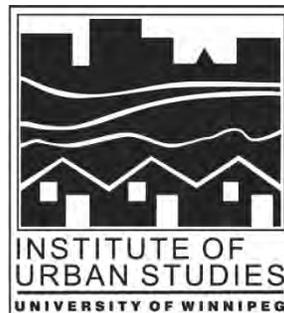
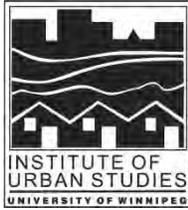


Exurban Development in the Winnipeg Region: The Issue of Services

**by Aaron James
1996**

The Institute of Urban Studies





THE UNIVERSITY OF
WINNIPEG

FOR INFORMATION:

The Institute of Urban Studies

The University of Winnipeg
599 Portage Avenue, Winnipeg
phone: 204.982.1140
fax: 204.943.4695
general email: ius@uwinnipeg.ca

Mailing Address:

The Institute of Urban Studies

The University of Winnipeg
515 Portage Avenue
Winnipeg, Manitoba, R3B 2E9

EXURBAN DEVELOPMENT IN THE WINNIPEG REGION: THE ISSUE OF SERVICES

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THE ISSUE OF SERVICES**

Student Paper 8

Aaron James

Institute of Urban Studies

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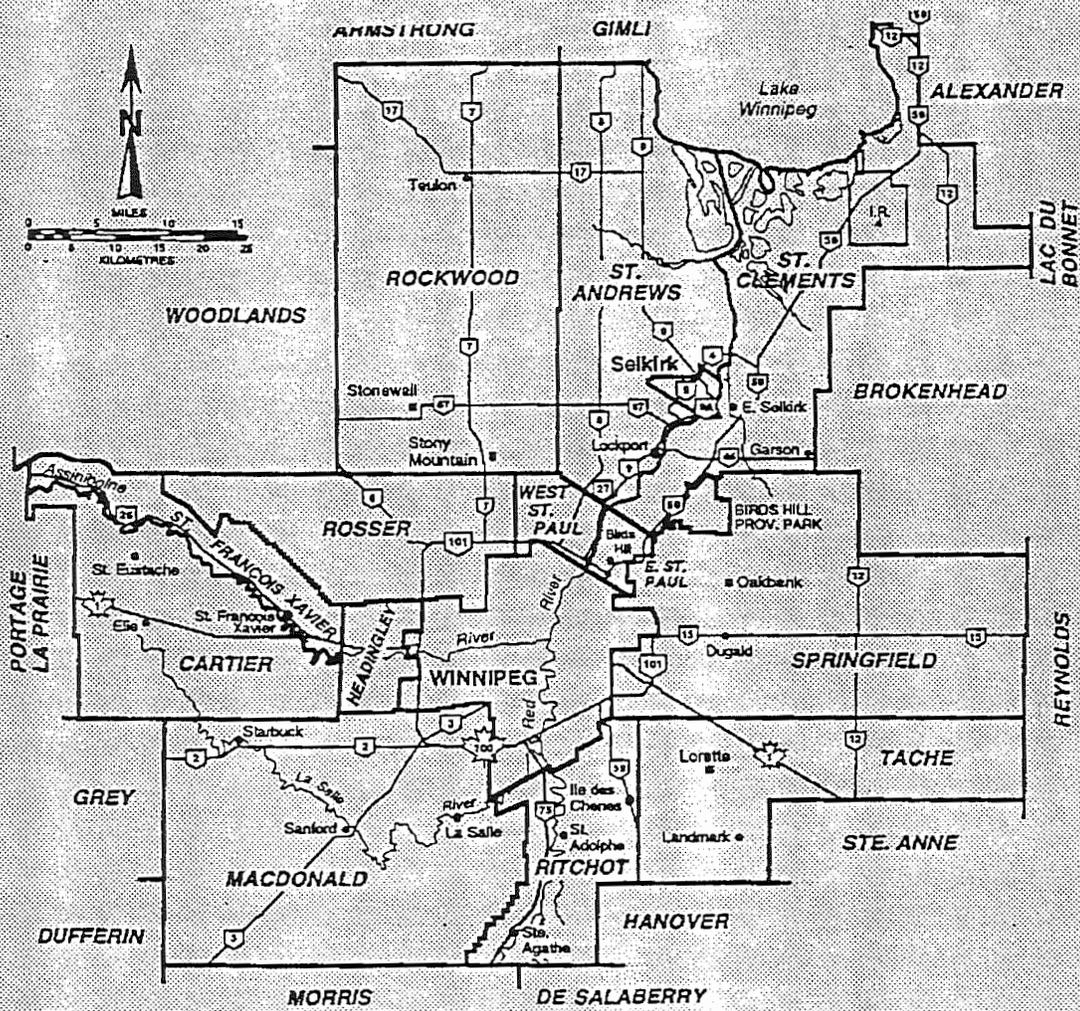
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CONTENTS

1.	INTRODUCTION	1
2.	POPULATION TRENDS AND SOCIO-ECONOMIC CHARACTERISTICS OF THE REGION	1
2.1	POPULATION TRENDS	1
2.2	REASONS FOR DISPERSAL	4
2.3	WHY ARE PEOPLE MOVING OUT?	4
2.4	WHO IS MOVING OUT?	5
3.	SERVICING CONSIDERATIONS ASSOCIATED WITH EXURBANIZATION	6
3.1	MUNICIPAL SERVICES	6
3.1.1	Transportation Amenity	7
3.1.2	Water Resources	7
3.2	TAXATION AND EQUITY	9
3.2.1	Between City and the RMs	10
3.2.2	Within the Region as a Whole	10
3.3.3	Within the RMs	11
4.	CONCLUSIONS	11
	NOTES	13
	REFERENCES	14

Map 1

MANITOBA'S CAPITAL REGION



From Clean Environment Commission, 1995

EXURBAN DEVELOPMENT IN THE WINNIPEG REGION: THE ISSUE OF SERVICES

Aaron James*

1. INTRODUCTION

In recent years, the issue of sprawl in Winnipeg has been the focus of much debate and interest, as Winnipeggers and Manitobans come to grips with the cost of extensive suburban, and now exurban, sprawl and simultaneously attempt to achieve a sustainable form of urban development. There is growing awareness about the consequences associated with uncontrolled, low-density urban, primarily residential, development in adjacent rural areas. Indeed, the rapid growth of exurban rural residential development in the urban fringe areas around Canadian cities continues to stifle sustainable, efficient and balanced urban growth. This paper addresses the infrastructure, amenity and servicing considerations and conflicts that are associated with exurban residential development in the Winnipeg Region.

2. POPULATION TRENDS AND SOCIO-ECONOMIC CHARACTERISTICS OF THE REGION

2.1 POPULATION TRENDS

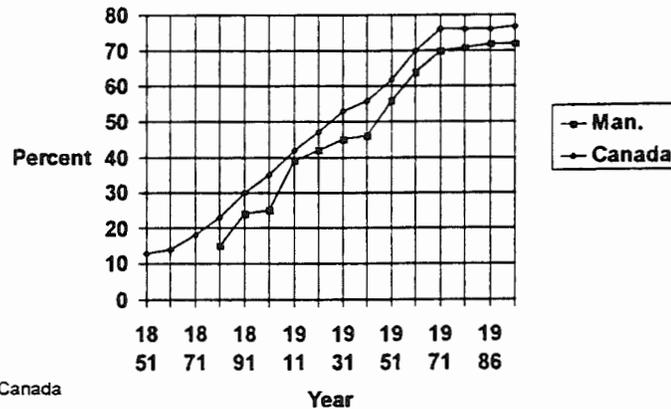
The rapid growth of the exurban population in the Winnipeg region must be taken in context of the broader shifts in population associated with North American urbanization. Two contradictory yet related forces have emerged in the migration of populations. The first of these is a centripetal concentration of people into urban areas (Figure 1). Canada has grown to be overwhelmingly urban.

It is time that we looked upon Canada as an urban phenomenon. The concentration of Canadians into urban areas, and the resulting changes in our way of life, have been going on since the first White settlement (Simmons and Simmons, 1969, p. 4).

Urban populations in all provinces have been increasing both absolutely and proportionately through time. By 1991, 77% of Canada's population was urban, 2.5 times greater than a hundred years earlier. Changes in the social and economic organization of the country have contributed to a massive increase of rural population migration into urban areas. Increased agricultural productivity, technological application and mechanization, industrialization, immigration, the dynamics of economies of scale, and the expansion of urban employment contributed to the growth of the city and decline of the countryside. In 1991, urban Manitobans made up 72% of the province's population, up from 24% a century earlier and 46% in 1946. Clearly, Manitoba has undergone a shift from a rural to an urban based society.

*Aaron James is the winner of the Institute of Urban Studies Student Paper Award, 1996.

Figure 1: Per cent of population Urban,
1851-1991, Canada and Manitoba



The second force to emerge out of the dynamics of urban growth has been the centrifugal migration of urbanized settlement away from core areas. As cities grew and the proportion of Canada's population became more urbanized, demand for land caused urban populations to push out further into the surrounding rural areas. Development pressures caused by the congestion of population and functions into urban areas led to their subsequent diffusion into the surrounding regions. Canadian cities "have dispersed in response to demands for space extensive activities for assembly-line manufacturing, truck and rail terminals, parking lots, and notably in the last twenty years, for shopping centres" (Gertler, 1981, p. 41). Dispersal of urban functions has also been related to the greater demands for space to accommodate residential development. The manifestation of these contrasting settlement forces is evident in the changing structure and form of metropolitan centres across Canada, including Winnipeg, Manitoba.

The segment of most diffuse urban settlement in the metropolitan region is the exurban area. "Exurbs" refer to the scattered urban settlement in the rural urban fringe zone which exist beyond the continuously built-up urban area. In the Winnipeg region, exurban settlement is largely contained in the 15 municipalities surrounding the city of Winnipeg which form the provincially designated "Capital Region" (Map 1). Exurbanization is regarded as "a process involving the movement of a household from an urban area to another location beyond the continuously built up urban region but within its extensive commuting field" (Davis and Yeates, 1991, p. 177). Exurban households are considered to be non-farm residents who work in the city, live

in the exurbs and retain extensive patterns of interaction—such as shopping, visiting friends and relatives, and so on—with the urbanized area.

Commuting patterns from the rural-urban fringe municipalities to the city illustrate the extent of exurban settlement in the Winnipeg region (Table 1).¹ As of 1991, there were 13,065 fringe residents above 15 years old working in Winnipeg, an increase of 6605 since 1981, where only 6460 fringe residents were employed in Winnipeg. Of the 13,065 residents in 1991, 30% were in Springfield, 21% were in East St. Paul, and 13% were in West St. Paul—a total of 64% of exurban commuters resided in the northeast quadrant of the city. The RMs of Ritchot (14%) and Tache (17%) to the southeast contained 31% collectively, while the residual 5% of exurban commuters resided in the remainder of the fringe area municipalities. Comparisons with 1981 indicate that there was a significant increase in exurban commutership relative to the change of non-exurban commuting work force in 1981.

Table 1: Commuters to Winnipeg, Percent of Labour Force

	1981	1991	Change
East St. Paul	76	85.4	9.4
Ritchot	58	66	8
Springfield	62.7	65.5	2.8
St. François Xavier	59.5	60.4	0.9
West St. Paul	82.8	87.2	4.4
Tache	N/A	57.7	
Rosser	N/A	52.4	
Mean	67.8	67.8	5.1

Source: City of Winnipeg, 1995.

On average, the proportion of exurban commuters had increased 5.1% relative to the residual population counted in the labour force. Unsurprisingly, Springfield, East and West St. Paul experienced the greatest proportional gains, since much of the exurban settlement in the region was concentrated in these municipalities. Thus, it can be concluded not only that exurban settlement was present in the Winnipeg rural-urban fringe area, but but it had increased very rapidly during the 1980s.

2.2 REASONS FOR DISPERSAL

Continuous improvements in transportation and communication technology and networks, and extension of infrastructure to areas outside of cities, permitted the development of rural residential units for a growing exurban population. The economic factors associated with the growth of household incomes following the Second World War enabled many more Canadians to purchase their dwellings. Home ownership on a broad scale help produce the dispersed, low-density form of residential structure present in most North American cities, including Winnipeg. Mass automobile ownership and highway construction accommodated access to urban employment from rural-urban fringe areas. As employment nodes continued decentralize, commuting times for exurban households have declined. The combination of these factors made rural-urban fringe residential environments amenable to exurban settlement.

2.3 WHY ARE PEOPLE MOVING OUT?

The motivating considerations which characterize migration to the rural fringe relate to various non-economic and economic factors (Bryant *et al.*, 1982, p. 17). "The desire to live in the countryside is an integral part of the demand for ever greater amounts of space" by exurbanites (Patterson, 1993, p. 98). Moreover, the perceived disadvantages of the modern urban environment—including the rapid pace and intensity of urban life, crime, drugs, pollution, congestion, high taxes and lack of natural amenities or open space—have acted as repellants for many people: "Wounded by high property taxes, hurt by cuts to city services and plagued by rising crime, Winnipeg is slowly bled of its residents as some choose to move to more rural areas" (Davis, 1994, p. D7). A survey of exurban residents in the Winnipeg region performed in 1972 provides a suitable base for drawing conclusions as to the reasons for exurban relocation for the study area (University of Manitoba, 1974). The reasons exurbanites gave for their relocation are listed in Figure 2.

Figure 2: Residential Preference Factors for Exurban Relocation

Area less crowded
Attractive landscape
More visual privacy around the home
Lower taxes
Wanted more land

Source: University of Manitoba, 1974.

The survey asserts that while the primary locational considerations for exurban households are based on non-economic factors, a greater number of residents will be drawn to the countryside for economic reasons

as land costs in Winnipeg soar (p. 44). Whether this indeed true cannot be verified unless a similar study is performed in the region now.

2.4 WHO IS MOVING OUT?

Comparisons with other areas in the Winnipeg region reveal that the composition of exurban households is prominently characterized as middle- to upper-income, two-parent families with children (Figure 3).

Figure 3: Selection Socio-Demographics, Winnipeg Region 1991					
	Winnipeg	Exurban Region	Inner City	Inner Suburbs	Outer Suburbs
Ownership of DU	60%	92%	30%	68%	73%
% SDU	60%	94%	40%	72%	69%
Average Value of DU	86,000\$	125,000\$	72,000\$	80,000\$	106,000\$
Below Poverty Line	21%	5%			
HH with 2 adults	60%	90%			
See end note 2 for study area delimitations.					
Source: Census Canada.					

The proportion of home owners is much higher in the exurbs (92%) than the other urban areas. Almost all of the residential units in the exurbs are single-detached units (SDUs) (94%). The average value of dwelling units (DU) in the region outside the city is higher than within by \$34,000. Average home values in the fringe even surpass the values found in the outer suburbs (\$106,000) by \$19,000. The higher average value of dwelling units (\$125,000) indicates that the affluent housing market is primarily being accommodated in exurban settlements. The very low proportion of the fringe area population below the poverty line (5%) indicates that economic conditions are favourable among exurban households. There is also a higher percentage of households (HH) with two adults in the fringe. Given the socio-demographic statistics, it can be argued that Winnipeg's shifting population base consists of those households, typically two parents with children, which are fairly affluent. Unsurprisingly, it is this population, which has the greatest accessibility to private transportation, that is moving out. These affluent family households who are migrating outside the city represent important components of Winnipeg's tax base: "While an affluent population shifts beyond the boundaries, [Winnipeg] is left with people in need and less assessment capacity to meet the need" (O'Shaughnessy, 1995).

3. SERVICING CONSIDERATIONS ASSOCIATED WITH EXURBANIZATION

The emergence of a dispersed, regional metropolis ignites concerns over the cost and viability of municipal servicing. The latent effect of increased exurban development has been an augmentation of the cost of servicing residential lots with transportation infrastructure, various utilities (electrical and telephone lines, water, sewage, natural gas, storm sewerage), solid waste disposal, social institutions (schools, hospitals, libraries), recreation facilities, and fire, police and ambulance protection. Further, the availability of municipal services in the fringe landscape has in itself encouraged even greater fragmentation of development, given that one could have the benefits of urban amenities in a rural setting.

3.1 MUNICIPAL SERVICES

The scattered, low-density structure of exurban development makes residential lots in the rural-urban fringe area unduly expensive to service with infrastructure, public facilities and amenities. Fragmented and sparsely developed, the fringe landscape typically contains a considerable amount of vacant land. Moreover, rural residential lots and frontages tend to be much larger than their counterparts in the city. As a result, utility lines and infrastructure need to traverse much greater distances to accommodate exurban residences. Costs of servicing an area with utilities are proportional to the length of the service line and the number of users along the lines (Russwurm, 1977, p. 59). With increased residential development replacing agricultural lands, the capacities of utilities and infrastructure serving the fringe areas need to be increased accordingly. Installation and maintenance costs of the utilities and infrastructure are also increased.

In the same fashion, the dispersion of exurban settlement has meant that public expenditures on police, fire, and ambulance services have also been magnified proportionately: "The greater travel distances necessitate more miles (and hours) of police patrol to provide a given level of coverage . . ." (RERC, 1974, p. 38). In addition, the greater distance to clinics and hospitals from fringe sites also add to the costs for ambulance services. Thus, in order to maintain satisfactory response times, an expanded number of fire halls, police stations and medical facilities have had to be built in the peripheral urban regions.

Public facilities such as schools, recreational complexes and libraries are often inadequately supported by the exurban population. As in the previous case, a greater supply of public facilities, in particular educational facilities, are needed to serve the expanding urban area conveniently (RERC, 1974, p. 34). It is difficult to locate public facilities in fringe area sites where distance standards, use and enrollments are adequately met (*ibid.*, p. 36). In the case of educational facilities, the standard response has been to bus students long distances to attend public schools. High transportation costs associated with busing students have the effect of reducing the funds school boards have available for educational purposes (*ibid.*). Moreover, the costs of construction and maintenance of these additional facilities and services adds an excess burden on the public purse.

3.1.1 Transportation Amenity

An important amenity requirement for exurban households is roadway access to the major city, since it provides an essential link to employment and other urban activities. Consequently, much exurban settlement can be found along or in close proximity to major transportation routes in ribbon or strip development (Lyon, 1983, p. 13). Protection of transportation corridors has become a problematic issue as growing numbers of exurban residents locate near these corridors.

The large volume of exurban commuters to Winnipeg accents the acuteness of transportation management issues in this region (Figure 5). Accompanying the rise of exurbanization has been an increase in commuter travel to Winnipeg. Heavy reliance on the automobile has meant that exurban residents require that roads be well maintained and clear year round. The increased traffic flows and speed of travel of commuters accelerates the deterioration of the roads, particularly on gravel roads. A 1990 Manitoba provincial report on rural residential development in the Winnipeg region outlined the impacts of exurban growth on the transportation corridors (Manitoba, 1990). The report noted that the growth contributed to increased traffic volumes, accidents and nuisance problems, which have had the effect of hastening costly highway improvements and expensive remedial measures such as highway widening and relocation (p. 40). Exurban commuting also threatens traffic flow and interferes with long-distance travel along highway axials such as the TransCanada Highway (*Winnipeg Free Press*, October 22, 1994). The added expense of roadway infrastructure construction and maintenance to accommodate commuter travel is the most costly impact of increased exurban settlement.

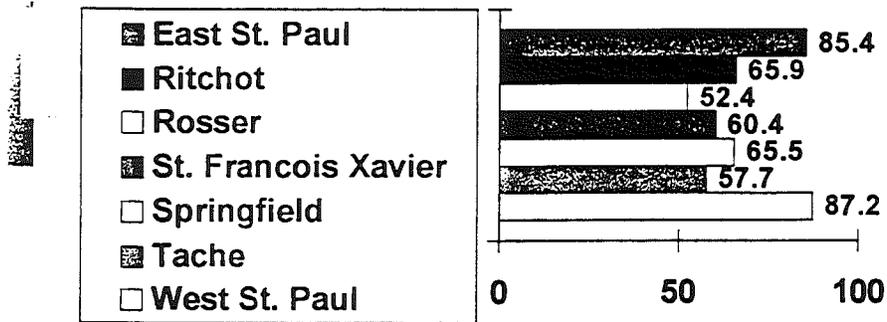
Transportation infrastructure expenditures within the urban area are affected by commuting exurbanites who do not fully share in the costs, since they do not pay property taxes to the city. In order to improve accessibility, ease automobile flow, and remove bottlenecks in part generated by exurban commuters, city governments are forced to increase the capacity of many arterials, or construct new major capital works projects such as bridges and underpasses. Meanwhile, the improvements made to transportation accessibility within the city has enabled growth to perpetuate further out in the rural-urban fringe, since there is usually a reduction in travel time to peripheral areas. Thus, the transportation infrastructure issue represents a serious servicing conflict within the region.

3.1.2 Water Resources

A primary resource and amenity issue facing exurban households has been accessibility to clean, potable water. Potable water is a crucial requirement for any type of residential use. Shortage of potable ground water in exurban areas in the Winnipeg region has set limits on the extent to which the fringe municipalities can develop (Moore, 1994, p. A7). Much of the water is supplied by aquifers, or ground water, through pumps, in

Figure 4: Commuting to Winnipeg
Percent of Labour Force

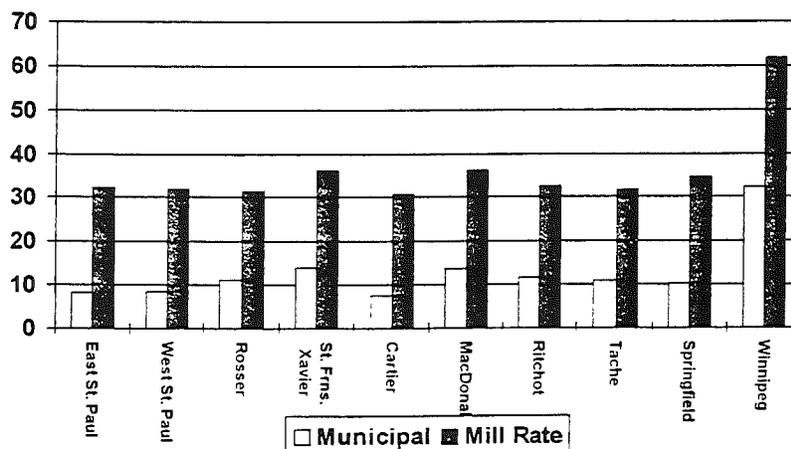
1991, Winnipeg CMA



Source: The City of Winnipeg, Works and Operations, 1995

Figure 5: Comparative Tax Rates,
Winnipeg Region, Manitoba

Winnipeg Region, Manitoba



Source: Manitoba Assessment Rolls

an unregulated fashion. Depletion of the ground water resources, and pollution of ground water, streams and aquifers poses severe threats to the future of a quality water supply in the region (Manitoba, 1990, p. 31). A recent study of the ground water which supplies many of the rural municipalities surrounding Selkirk found the aquifer to be "stressed to capacity" (Gleeson, 1994, p. 11). Transition to residential development from agricultural lots, and increased density of fields "usually means . . . greater levels of water use . . .", and greater amounts of wastewater working into the aquifer (ibid., p. 14). Costs of servicing the exurban area with piped water, as it is within the built-up area, would, in most cases, be prohibitive, when one accounts for the high costs of pipeline installation and maintenance. Consequently, the issue of water supply as a natural resource and as an amenity is a very important aspect of the potential for setting limits on the extent of exurban development in the region.

3.2 TAXATION AND EQUITY

The expansion of municipal services to accommodate exurban settlement within the fringe area poses some difficulties with regard to equity. When urbanites move into rural areas, they frequently demand services comparable to those found in urban areas. These expenses are not borne solely by the residents of the fringe areas; servicing costs are too expensive for the exurban households to bear alone. "[The] economical and equitable provision of services generally requires compact, continuous development, not the irregular development frequently associated with the fringes" (Russwurm, 1977, p. 59). Consequently, the costs of servicing rural residential lots are spread over to other functions in the rural municipalities and frequently over to the tax base of the entire metropolitan region.

**Figure 6: Residential Comparison
Between Areas**
Winnipeg Region, Manitoba

	734 Laxdal Rd. Winnipeg	3892 Henderson Hwy. East St. Paul
Municipal Taxes	1239\$	1222
Year Built	1971	1977
House Size	972 sq. ft.	2001 sq. ft.
Lot Size	7200 sq. ft.	89,100 sq. ft.
Characteristics	full basement sing att. garage	full basement double att garage river lot

Source: City of Winnipeg, Province of Manitoba
Tax Assessment Rolls

3.2.1 Between City and the RMs

Economic advantages of locating in a rural municipality outside the metropolitan jurisdiction include the lower land costs, availability of larger lots, greater flexibility of land use with fewer land restrictions, and lower taxes. Differentiation of tax rates and land costs between urban and rural municipal jurisdictions creates misconceptions about the true costs of operating and servicing a metropolitan centre. While residing near the metropolis, exurban households enjoy the benefits of a large city without necessarily paying for it.

Mill rates represent the proportion of assessment value of real property from which taxes are derived. The City of Winnipeg's municipal mill rate in 1995, over 32.342, is far in excess of mill rates in the fringe area municipalities. Rural municipality mill rates in the Winnipeg region range from a low of 7.59 in Cartier to a high of 13.91 in St. François Xavier, and a mean municipal mill rate of 10.65 (Figure 6). Differing tax rates among the jurisdictions in the Winnipeg region has bolstered exurban residential development pressures on the region.

In a specific example of two residences, one in the city and one outside of the city in the fringe area, the acuteness of the taxation dilemma comes to light (Figure 6). In this example, both houses paid roughly the same amount of municipal taxes (\$1239 in the city, \$1222 for the fringe). Compared with the property in the city, the fringe dwelling had certain features which made it much more attractive. For instance, the house size was more than double and the lot size more than 12 times that of the comparable dwelling in Winnipeg. Moreover, the home in the East St. Paul is situated on a river lot, has a double attached garage, compared with a single garage added six years after the home on Laxdal Road in Winnipeg was built. Dramatic differences in taxation between Winnipeg and its fringe have contributed to the expansion of exurban growth in this region.

The inter-jurisdictional taxation inequities between Winnipeg and neighbouring fringe municipalities have been intensified by recent fully serviced residential subdivision development outside the city. Recent subdivision activity in the small satellite communities in fringe municipalities have taken the form of serviced lots, comparable and frequently in competition with suburban residential development inside the city. "Serviced lot development [particularly] in East and West St. Paul has begun to outpace unserviced lot development in the RMs" (Manitoba, 1990, p. 70). Serviced smaller lot development occurring in the fringe areas represents an escalating source of inter-jurisdictional conflict between the City of Winnipeg and the rural municipalities in the region.

3.2.2 Within the Region as a Whole

The regional services provided to the fringe areas lead either to increased costs or inferior quality of service delivery. Revenues required for deteriorating urban infrastructure are being redirected into servicing the fringe areas with public facilities and infrastructure to accommodate the increased exurban development. New schools, roads, water and sewer lines are constructed, while existing structures decay.

3.3.3 Within the RMs

The expansion of services within the fringe area also creates inequities among the fringe residents. Exurban households, typically defined as non-farm households, move into rural areas and demand a level of servicing comparable to urban areas. The non-farm residents benefit from the increased influence in local political decision-making, since they are usually more numerous, better organized and active in political affairs. The political clout held by the exurban households is often used to create restrictions for objectionable farming practices and pressure for service expansion.

In most fringe municipalities, the dominant land use was at some point agricultural; most of these RMs still are predominantly farmland. Even though municipal property taxes for farming operations are proportionally lower than residential uses, farming operations pay a greater share of the servicing costs, since agricultural land holdings tend to be much larger than residential lots (Bryant *et al.*, 1982). Moreover, rising tax rates caused by increases in municipal servicing and maintenance costs are unequally borne by farmers. Agricultural land holders are the unwilling recipients of services suited to higher densities which they cannot afford. The costs to the residential home owner would be appropriate, since the lots are smaller and thus proportional costs of services are lower: "Although a cost-benefit analysis of the Winnipeg region has yet to be done, similar studies elsewhere conclude that the costs associated with the rural residential development were in excess of the property taxes collected for such developments and that farms were in effect subsidizing [exurban] residents" (Manitoba, 1990, p. 43). Consequently, farming operations are frequently pressured out of the municipalities by the increased costs of services and taxes. Furthermore, by making agricultural land use economically unfeasible, the pressures to redevelop land for other uses, such as residential uses, increase.

4. CONCLUSIONS

The future of Manitoba is closely tied to the future of the Capital Region. Although the region consists of only about 1.4% of the province's land base, more than 60% of the population, labour force and industry is located there (Manitoba Round Table, 1995, p. 14).

The general thesis presented here is that the rise of exurbanization threatens the fiscal health of the entire metropolitan area. Increases in exurban settlement in the Winnipeg region raises a number of policy considerations and conflicts, particularly with reference to municipal service provision and taxation equity. Accordingly, these conflicts and issues arising from exurban development need to be resolved to achieve a balanced form of regional development. The costs associated with allowing this form of development to persist—the lost tax base and increased costs of infrastructure to service these residents—are becoming more acute, especially in this time of frugality. Given Winnipeg's dominance within the province both in terms of population and economy, a healthy and vibrant Winnipeg means a healthy and vibrant province. However, can

the city maintain its vibrancy if its population continues to sprawl further and further from its core into the diffuse rural-urban fringe landscape?

Part of the need to reconfigure service delivery in the Winnipeg region is to address the taxation inequity among the various municipalities. In particular, there is a growing concern over use of city services and infrastructure on the part of exurban residents without reception of taxation revenues from them. The complaint frequently levelled is that there is no mechanism to tax exurban residents for their repetitious use of urban supported services. Moreover, Winnipeg's tax base is being eroded as middle- and upper-income residents relocate into the neighbouring fringe municipalities.

The need for a regional approach to the management of growth in the Winnipeg region has never been more apparent than at present. The question remains: Can the members of the larger Winnipeg region cooperate to develop in a balanced fashion according to the greater regional good if they continue to compete against each other for development?

NOTES

1. The unavailability of data forced the researcher to consider exurban commuting trends for the rural municipalities contained solely within the spatially limited Census Metropolitan Area. Certain rural municipalities found in the Winnipeg Commutershed that contain exurban settlement were, unfortunately, not considered.

2. Winnipeg's sub-regions were delimited on the basis of distance from the Central Business District (CBD). They include:

CORE: census tracts within 3 km of the CBD.

INNER SUBURBS: census tracts within 6 km, but outside of the 3 km radius of the CBD.

OUTER SUBURBS: all census tracts falling outside of the 6 km radius of the CBD and within the city's jurisdictional boundaries.

EXURBAN AREA: Winnipeg CMA rural municipalities.

REGION: Rural Municipalities falling within the Capital Region.

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