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**A DISTINCT
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THE ECONOMIC
RESTRUCTURING
OF MONTRÉAL IN
THE CANADIAN
CONTEXT**

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et
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Inédits

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**A DISTINCT METROPOLIS FOR A DISTINCT
SOCIETY?: THE ECONOMIC RESTRUCTURING OF
MONTREAL IN THE CANADIAN CONTEXT**

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ABSTRACT

Much of the literature on the Montreal economy suggests that, in one way or another, the latter has been, and remains, substantially different from that of Canada's other large metropolitan areas. Certain researchers have suggested that Montreal is "structurally challenged", that is, characterised by an out-moded economic structure based largely upon traditional industries. A more recent theme in the literature suggests that Montreal is still different, but now because it has become one of North America's emerging high technology centres. In this article, we examine the thesis that Montreal is structurally distinct by specifically comparing Montreal and Toronto, and by more generally situating the two in the broader context of Canada's eight largest metropolitan areas. The analysis covers the period 1981-1996, and examines economic structure in terms of sector, occupation and major metropolitan functions. Our results indicate that, except for several very specific aspects, Montreal's economic structure is not very different from that of Toronto. Further, when compared to the group of eight large metropolitan areas, Montreal's economic structure is not particularly distinct; according to several indicators Montreal is, rather, quite "average".

RÉSUMÉ

Un courant important de la littérature sur l'économie de Montréal soutient que, d'une façon ou d'une autre, sa structure économique est différente de celle des autres grandes régions métropolitaines canadiennes. Certains chercheurs concluent que Montréal se caractérise par une structure économique démodée, étant basée sur les industries traditionnelles. Un courant plus récent suggère que Montréal se distingue dorénavant en raison de son statut émergent comme centre de haute technologie. Dans cet article, nous examinons la thèse du caractère distinct de Montréal, en comparant Montréal et Toronto et, plus généralement, en situant ces deux métropoles dans le contexte des huit plus grandes régions métropolitaines canadiennes. Notre analyse, qui couvre la période 1981-1991, examine la structure économique métropolitaine sous l'angle des secteurs, des professions et des fonctions métropolitaines. Nos résultats indiquent que, sauf dans le cas de certains aspects précis, la structure économique de Montréal ressemble à celle de Toronto et des huit grandes métropoles canadiennes. Loin d'être distincte, la structure économique de Montréal semble plutôt «moyenne».

INTRODUCTION

A current point of cultural and constitutional contention in Canada concerns the status of the Province of Quebec as a “distinct society”. While a comprehensive treatment of this issue is beyond our scholarly competence (and also beyond the finite limits of our energy), we note that there exists an interesting parallel between this question and an important debate situated within our own field of regional science. Much of the past and current literature on the economic structure and performance of Montreal, Quebec’s largest (and Canada’s second largest) metropolitan area, suggests that, in one way or another, Montreal has been, and remains, substantially different from the nation’s other large census metropolitan areas (CMAs). Certain researchers (e.g., Chung 1974; Higgins 1986; Côté 1991) have written that Montreal is characterised by an out-moded economic structure based largely upon traditional industries (“structurally challenged” would be the politically correct description of this condition). The well-documented economic decline of Montreal, particularly in relation to Toronto, the argument runs, is thus principally structural in its antecedents. The logical extension of this line of reasoning is that if Montreal’s economic structure can be modernised, its decline can be reversed. On the other hand, a more recent theme in the literature (e.g., Lapointe and Fortin 1998) suggests that Montreal remains different from the other large Canadian CMAs, but now because it has become one of North America’s emerging high technology centres. The implication of this school of thought is that Montreal may be well on its way to correcting its “structural defects” and, thus, reversing its decline.

In this article we critically examine the notion that, in terms of its economic structure and performance, Montreal is somehow distinct. Our basis of comparison is specifically Toronto; more generally, however, we also include the aggregated group of Canada’s eight largest CMAs: Toronto, Montreal, Vancouver, Ottawa-Hull, Edmonton, Calgary, Quebec and Winnipeg. The empirical analysis that we present, which covers the period 1981 to 1996, is based upon three indicators of economic structure: sector, function and occupation. The present research is the most recent in a long line of analyses by ourselves (e.g. Coffey and Polèse 1989, 1993; Polèse 1990) and others (see, for example, the authors cited above) that have sought to examine the Montreal economy and, in particular, its position relative to Toronto.

The following section describes the data that we employ and defines the concepts of sectoral, functional and occupational structure. Next, we present our empirical analysis, based upon these three concepts. Finally, we integrate our results into a discussion concerning the current economic role of Montreal in the Canadian context.

DATA AND DEFINITIONS

The analyses presented here utilise *employment by place of residence* data, collected by the 1981 and 1996 Censuses of Canada. The basic concept underlying these data is that of the “employed labour force”: those persons who held a remunerated job during the week immediately preceding Census Day of the relevant year. The 1981 and 1996 data have been standardised to control for changes in sectoral definitions that may have occurred between the 1981 and 1996 Censuses. The comparison of occupational data between 1981 and 1996 is, however, problematic. Unlike changes to the sectoral definitions (the Standard Industrial Classification), where detailed classes of activities have been generally kept together and moved from one major group to another -- thus permitting equivalences to be easily established, the 1991 modification to the Standard Occupational Classification (which applies to the 1996 data only) has often divided detailed occupational classes and reapportioned these fragments among several major occupational groups. It thus becomes impossible to establish an exact correspondence between the occupational definitions employed in 1981 and 1996. Thus, where occupational groups are involved, while a cross-sectional comparison of CMAs in any given year will yield valid results, a longitudinal analysis of any one CMA will generally display discontinuities induced by changing definitions.

Sectoral classification

The concept of “economic sector” is conventionally utilised to sub-divide an economy into relatively homogeneous groups of activities. Individual *firms*, and thus their employees, are assigned to economic sectors on the basis of the “finished product” that results from each firm’s activity. Thus, an individual *establishment* (and its employees) within a mining or a manufacturing firm -- a head office or a research laboratory, for example -- will be classified, along with the rest of the firm (and the rest of the firm’s employees), in the primary or manufacturing sector, even though the establishment itself (and its employees) may, in reality, be more correctly regarded as fulfilling a high-order service function. For this reason, when describing the structure of an economy, the use of sector alone may prove to be somewhat misleading; in particular, the extent of service-related activities within “goods-producing” firms tend to be under-estimated by sectoral classifications.

Occupational classification

A complementary manner of categorising the employed labour force is in terms of *occupation*, rather than economic sector. Occupation refers to “the kind of work performed” (i.e., the duties and tasks carried out) by a person, irrespective of the kind of

business (and thus the economic sector) in which this work is accomplished. A lawyer or an accountant will generally perform the same type of work (fulfil the same economic role) irrespective of whether he/she is employed by a manufacturing firm or a computer services firm. Further, in this manner, service-related occupations (e.g. managers, engineers, accountants and lawyers) within “goods-producing” firms may be readily identified. In this paper, we focus upon two “high information content” occupational groups in particular: managers & administrators and scientific & engineering personnel.

Functional classification

Finally, our analysis employs the concept of “major metropolitan functions”. An economic function is an alternative manner of considering the structure of a metropolitan area. Although using individual economic sectors as its building-blocks, a functional classification differs from a conventional sectoral classification in that the former combines activities that are functionally related in spite of being classified over a wide range of specific economic sectors. In other words, a functional classification logically groups activities that are both complementary and interdependent. In our experience, large metropolitan areas distinguish themselves from smaller metropolitan and urban areas in terms of the economic functions that they fulfil. Four functions in particular characterise major metropolitan areas and form the basis for our analysis:

1. A *culture and media* function, often referred to as “the entertainment industry”: book and magazine publishing; film production and distribution; cinemas; radio and television broadcasting; theatres and staged entertainment; amusement and recreation services.
2. A *distribution and marketing* function that involves advertising and marketing agencies; wholesale trade; moving and storage activities.
3. A *command and control* function that includes accounting; management consulting; and finance, insurance and real estate services.
4. A *high technology* function involving both manufacturing activities (aerospace activities; business machines; pharmaceuticals and biotechnological products; scientific and professional equipment; and telecommunications equipment) and service activities (computer services; engineering and scientific services).

EMPIRICAL ANALYSIS

In this section, we systematically examine the relative position of Montreal with respect to 1) Toronto and 2) the aggregated set of eight large Canadian CMAs (Toronto, Montreal, Vancouver, Ottawa-Hull, Edmonton, Calgary, Quebec and Winnipeg),

according to the three indicators that we have identified above: sector, function and occupation. In our analyses, we examine both employment structure and employment growth over the period 1981-1996.

Sectoral analysis

Table 1 indicates the relative share and the growth rate of employment in 13 aggregated economic sectors, as well as in the larger goods-producing and service-producing categories, for Montreal, Toronto and the eight-CMA group over the study period. In general, the sectoral profiles of Montreal and Toronto are remarkably similar, and these, in turn, are very similar to the aggregate profile of the eight large CMAs. While the share of employment in the service sector is virtually identical in Montreal and Toronto (78.2% vs. 77.9% in 1996), both CMAs are less tertiarized than the aggregate set of eight large CMAs (80.0%). In fact, only Calgary (77.6%, not shown), on the basis of its primary and construction sectors, is less tertiarized than Montreal and Toronto. In terms of individual sectors, Montreal (17.2%) and Toronto (16.7%) have a substantially larger share of employment in manufacturing than the eight-CMA group (13.6%); in third position among the eight CMAs is Winnipeg (13.0%, not shown). The major difference between Montreal and Toronto comes in the two high-order service groups: finance, insurance and real estate (FIRE), and business services. In the FIRE sector, Montreal's 1996 employment share (6.4%) is below that of Toronto (9.2%), and below that of the eight-CMA group (7.3%). Note that the gap between Montreal and Toronto has increased by 0.8 percentage points over the study period. In the business services sector, the same pattern is reproduced: Montreal's percentage (8.3) is below both that of Toronto (10.3) and that of the group (9.0). Montreal ranks fourth among the eight CMAs in terms of its 1996 share of employment in the FIRE sector, and fifth in terms of business services. Toronto ranks first and second (behind Calgary), respectively, in these two sectors.

Where growth rates are concerned, total employment grew more slowly in Montreal (18.7%) than in Toronto (24.8%) or in the eight-CMA group (25.9%). The difference between Montreal and Toronto was fairly significant in the FIRE sector: 13.3% vs. 32.5%, respectively. Interestingly, however, the rate of growth for business service employment was slightly higher in Montreal (88.7%) than in Toronto (83.2%) over the period, although in absolute numbers the performance of Toronto was superior (313.6 thousand vs. 185.2 thousand). Mention should also be made of the transportation, communications & public utilities sector. Although the share of total employment in this sector is higher in Montreal than in Toronto, the performance of Montreal (-4.2%) is well below that of Toronto (14.1%) and the group of eight CMAs (8.7%). Indeed, Montreal and Winnipeg (-5.1%, not shown) are the only two CMAs to have experienced employment decline in this sector over the period.

Table 1 – Sectoral structure and growth rates: Montreal, Toronto and 8 large CMAs, 1981-1996

Sector		Montréal		Toronto		8 CMAs	
		emp. share	gr. rate	emp. share	gr. rate	emp. share	gr. rate
		(%)	(%)	(%)	(%)	(%)	(%)
Primary	1981	0,7		1,0		1,9	
	1996	0,7	28,9	0,7	-12,0	1,6	2,3
Manufacturing	1981	23,7		23,5		18,4	
	1996	17,2	-13,9	16,7	-11,4	13,6	-7,4
Construction	1981	4,3		5,5		6,0	
	1996	3,8	3,8	4,7	6,0	4,9	2,5
SUB-TOTAL: GOODS-PRODUCING	1981	28,8		30,0		26,4	
	1996	21,8	-10,2	22,1	-8,2	20,0	-4,4
Transportation, communications, public utilities	1981	10,2		8,2		9,2	
	1996	8,3	-4,2	7,5	14,1	8,0	8,7
Wholesale trade	1981	5,8		6,5		5,9	
	1996	6,3	30,4	6,6	26,1	6,0	28,8
Retail trade	1981	11,8		11,8		11,9	
	1996	12,5	25,5	11,6	22,9	12,0	26,7
Consumer services	1981	5,7		5,8		5,7	
	1996	8,0	66,5	8,2	76,6	8,2	81,5
Accommodation & food services	1981	4,8		5,0		5,2	
	1996	5,7	39,8	5,7	43,9	6,3	52,7
Finance, insurance & real estate	1981	6,7		8,7		7,3	
	1996	6,4	13,3	9,2	32,5	7,3	25,1
Business services	1981	5,2		7,0		6,1	
	1996	8,3	88,7	10,3	83,2	9,0	85,3
Education	1981	6,9		5,9		6,6	
	1996	7,3	24,3	6,5	38,0	7,1	36,1
Health & social services	1981	8,3		6,0		7,4	
	1996	10,5	49,9	8,4	76,3	9,7	64,8
Public Administration	1981	5,7		5,2		8,3	
	1996	5,0	3,8	3,9	-6,4	6,4	-2,7
SUB-TOTAL: SERVICE-PRODUCING	1981	71,2		70,0		73,6	
	1996	78,2	30,4	77,9	39,0	80,0	36,8
ALL SECTORS	1981	100,0		100,0		100,0	
	1996	100,0	18,7	100,0	24,8	100,0	25,9

The theme of similarity between Montreal and Toronto is further reinforced when one examines the individual detailed-level sectors (among a total of 160) that experienced the largest gains in employment over the period 1981-1996. Figures 1 and 2 indicate the 20 sectors that experienced the largest absolute gains in employment in Montreal and Toronto, as well as the growth rate of each sector. Fifteen sectors may be found jointly on the “top 20” list of each CMA. The five sectors that are present in Montreal but absent in Toronto are: scientific & technical services, film production & distribution, other teaching, universities & colleges, and drug stores; the first four sectors of this group are characterised by a high level of intellectual or creative input. On the other hand, the five sectors that appear in Toronto but not in Montreal are not generally of this nature: banks, auto parts, offices of doctors & dentists, post offices, and employment agencies. Note, further, that all of the “top 20” sectors identified, with the exception of the fabrication of automobile parts in Toronto, are service activities.

When one examines the sectors that experienced the largest absolute declines in employment over the period (not shown), the similarity between Montreal and Toronto is somewhat less striking; only seven sectors appear jointly in the two CMAs: knitting mills, rail transportation, general merchandise stores, metal products, shoes & leather products, highway maintenance, and bakeries. In the case of both metropolitan areas, however, the largest employment decreases are clearly in the manufacturing sector, and, like most metropolitan areas in developed economies, generally in low value added or traditional manufacturing activities. The loss of manufacturing employment in Toronto has some surprising aspects, however; a significant proportion of job loss is found in sectors that are generally considered to be “high technology” activities: aircraft & aircraft parts (3.8 thousand jobs lost), scientific equipment (3.7 thousand), telecommunications equipment (2.5 thousand), and industrial electric equipment (2.8 thousand). In Montreal, the only “high tech” sector to lose employment was business machines (1.7 thousand).

Figure 1 – High growth sectors, Montreal, 1981-1996

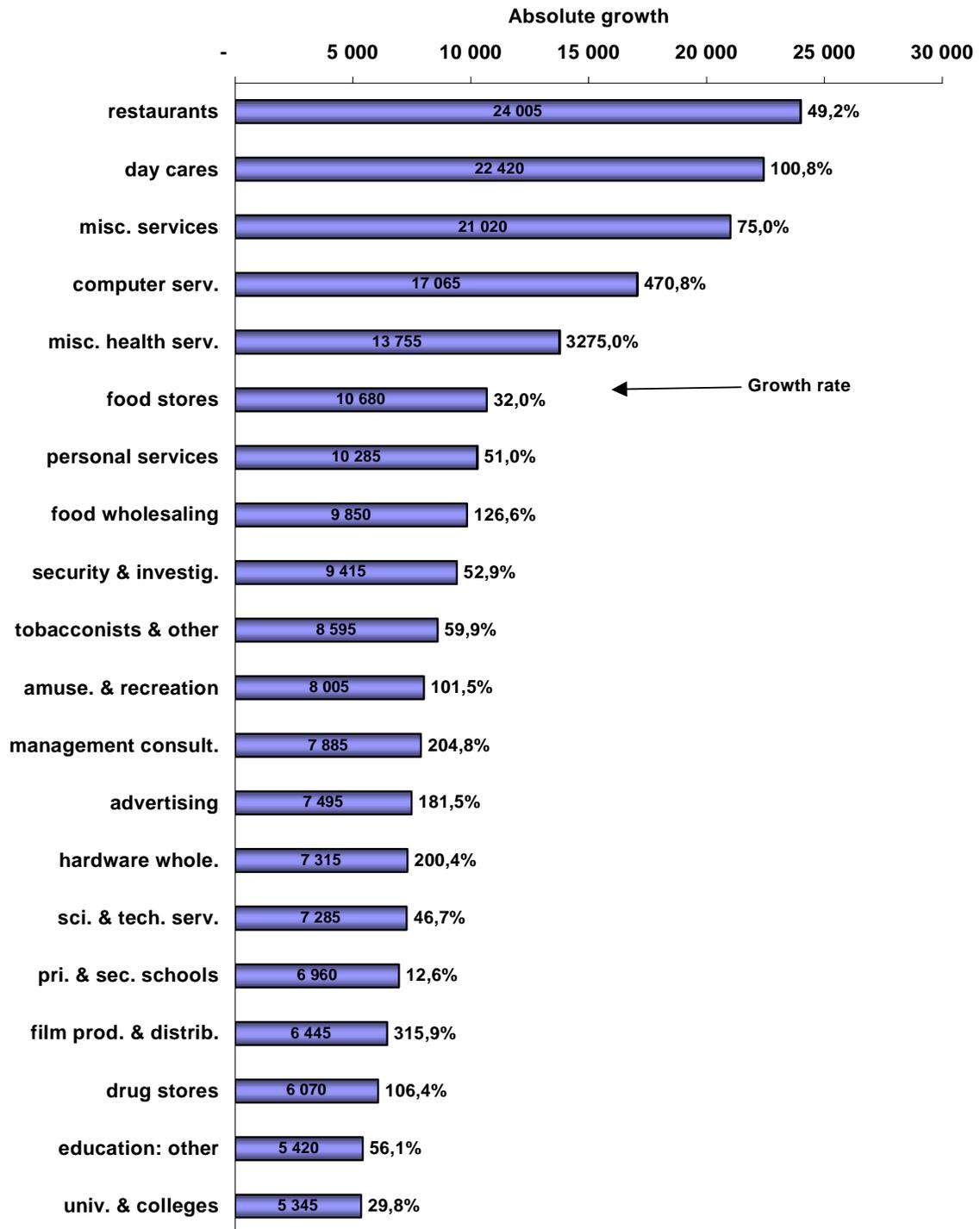
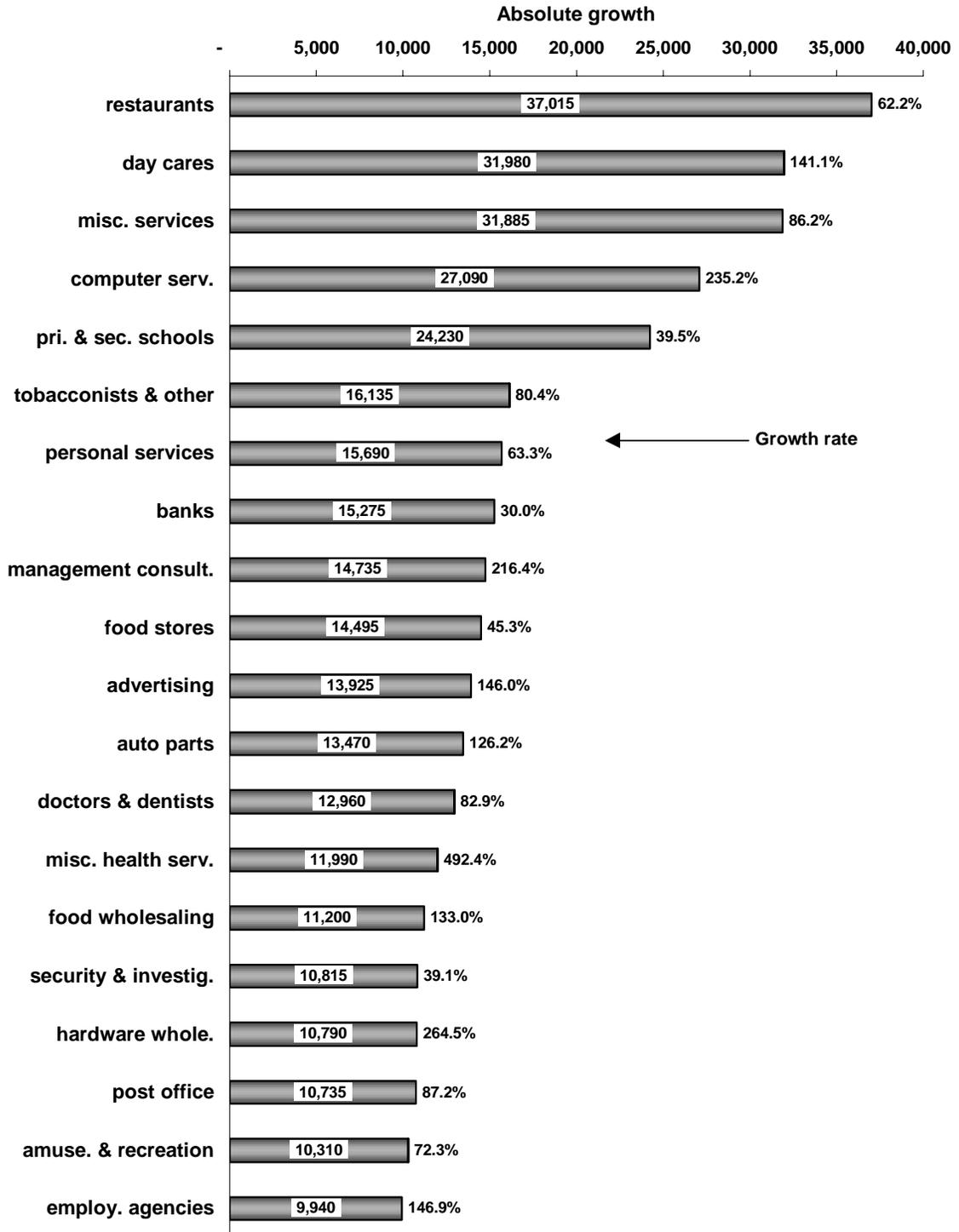


Figure 2 – High growth sectors, Toronto, 1981-1996



Functional analysis

Table 2 indicates the relative share and the growth rate of employment in the four major metropolitan functions in Montreal and Toronto as well as the eight-CMA group over the study period. In the case of three of the four functions (i.e., with the exception of high technology), Montreal's share of total employment is less than that of Toronto. It is in the command & control function where the gap between Montreal and Toronto is the largest (7.4% vs. 11.3%, respectively, in 1996); the gap has almost doubled since 1981. Similarly, with the exception of the command & control function, the relative share of Montreal exceeds (slightly) the share of the eight-CMA group. Among the eight CMAs (analysis not shown), Montreal's share of employment in the culture & media function in 1996 merits a second place (after Toronto); Montreal is tied with Vancouver for second place (again behind Toronto) in distribution & marketing; it is in third place (behind Calgary and Ottawa-Hull) in high technology, and in fifth position (behind Toronto, Vancouver, Quebec, and Calgary) in command & control functions. Where the total of the four metropolitan functions is concerned, Montreal's employment share (24.9%) is less than that of both Toronto (29.6%) and the eight-CMA group (25.5%). According to this measure, Montreal finds itself in fourth position in 1996 behind Toronto, Calgary and Vancouver. In 1981, however, Montreal was tied with Calgary for second position. Thus, Montreal's share of employment in those functions that normally characterise a large metropolitan area is rather weak; two smaller CMAs, Vancouver and Calgary, have relatively more employment in these functions than does Montreal. In addition, over the period 1981-1996, Montreal has seen its relative position within the Canadian urban system decline with respect to these major metropolitan functions.

The two sub-components of the high technology function – high technology services and high technology manufacturing – merit special mention. In the case of the former, Montreal's relative share of employment (2.9%) is slightly lower than that of both Toronto and the eight-CMA group (both 3.3%). In fact, among the eight CMAs, Montreal's share merits only a fifth position, behind Calgary (5.3%), Ottawa-Hull, Vancouver, and Toronto. On the other hand, where high technology manufacturing is concerned, Montreal's relative employment share (2.9% in 1996) surpasses that of both Toronto (2.1%) and the eight-CMA group (2.0%); indeed, Montreal is tied with Ottawa-Hull for the first position among the eight CMAs. Table 3 presents more detail on high technology manufacturing in five CMAs; the CMAs in which high technology manufacturing activity is relatively unimportant -- Edmonton, Quebec and Winnipeg -- have been eliminated from the table for ease of presentation. In spite of Montreal's secondary position in the Canadian economy (Toronto had over 500 thousand more jobs than Montreal in 1996), in absolute numbers high technology manufacturing employment in Montreal exceeds that in Toronto. Montreal's particular strengths are in aircraft & aircraft parts and telecommunications equipment. In these two sectors, Montreal

accounts for approximately two-thirds and one-third, respectively, of the aggregate employment across the five large CMAs. On the other hand, Montreal's employment is relatively weak in the business machine sector. Ottawa-Hull and Calgary are relatively specialized in telecommunications equipment and business machines, respectively, while Toronto's profile is much more even across the five sectors.

Table 2 – Functional structure and growth rates, Montreal, Toronto and 8 large CMAs, 1981-1996

Function		Montreal		Toronto		8 CMAs	
		emp. share (%)	gr. rate (%)	emp. share (%)	gr. rate (%)	emp. share (%)	gr. rate (%)
Culture & media	1981	3,3		4,1		3,1	
	1996	4,5	60,1	4,9	48,5	4,3	70,9
Distribution & marketing	1981	6,3		7,4		6,4	
	1996	7,2	35,8	8,0	35,0	6,9	36,3
Command & control	1981	7,7		9,8		8,1	
	1996	7,4	13,5	11,3	43,1	9,0	40,5
High technology	1981	4,5		4,9		4,0	
	1996	5,8	52,1	5,4	36,3	5,3	69,1
TOTAL:	1981	21,9		26,3		21,5	
METRO FUNCTIONS	1996	24,9	35,0	29,6	40,0	25,5	48,9
High technology manufacturing	1981	3,1		3,1		2,2	
	1996	2,9	10,9	2,1	-16,3	2,0	14,11
High technology services	1981	1,4		1,8		1,8	
	1996	2,9	141,7	3,3	127,7	3,3	135,3

Finally, in terms of growth rates across the four major metropolitan functions (Table 2), Montreal's growth was more rapid than that of Toronto, but less rapid than that of the eight-CMA group in culture & media and in high technology; in marketing & distribution its performance was not appreciably different from the two reference points. On the other hand, for both the total of the four functions and, in particular, the command & control function, Montreal was out-performed by both Toronto and the aggregate group (13.5% vs. 43.1% for Toronto and 40.5% for the group in the case of command & control).

Table 3 – High technology manufacturing employment in five large CMAs, 1996

Employment (absolute number)						
	Montreal	Toronto	Ottawa-Hull	Calgary	Vancouver	5 CMAs
Business machines	1 455	7 155	2 170	7 155	2 070	20 005
Aircraft & parts	17 650	8 140	350	280	675	27 095
Telecommunications equipment	14 275	10 820	10 585	3 210	2 675	41 565
Pharmaceuticals	6 480	8 110	165	340	900	15 995
Scientific & prof. equipment	2 650	7 200	1 170	1 070	1 115	13 205
	42 510	41 425	14 440	12 055	7 435	117 865
High technology manufacturing structure by CMA (CMA = 100%)						
	Montreal	Toronto	Ottawa-Hull	Calgary	Vancouver	
Business machines	3,4%	17,3%	15,0%	59,4%	27,8%	
Aircraft & parts	41,5%	19,6%	2,4%	2,3%	9,1%	
Telecommunications equipment	33,6%	26,1%	73,3%	26,6%	36,0%	
Pharmaceuticals	15,2%	19,6%	1,1%	2,8%	12,1%	
Scientific & prof. equipment	6,2%	17,4%	8,1%	8,9%	15,0%	
	100,0%	100,0%	100,0%	100,0%	100,0%	
Distribution of high technology manufacturing employment across CMAs (5 CMAs = 100%)						
	Montreal	Toronto	Ottawa-Hull	Calgary	Vancouver	5 CMAs
Business machines	7,3%	35,8%	10,8%	35,8%	10,3%	100,0%
Aircraft & parts	65,1%	30,0%	1,3%	1,0%	2,5%	100,0%
Telecommunications equipment	34,3%	26,0%	25,5%	7,7%	6,4%	100,0%
Pharmaceuticals	40,5%	50,7%	1,0%	2,1%	5,6%	100,0%
Scientific & prof. equipment	20,1%	54,5%	8,9%	8,1%	8,4%	100,0%

In sum, our analysis of major metropolitan functions reinforces the notion that Montreal, in comparison with Canada's other large CMAs is, above all, a manufacturing centre with a relative specialization in high technology activities, rather than a locus of strategic high-order services. In particular, Montreal's role as a centre of command & control functions is both relatively weak and in decline.

Occupational analysis

Table 4 indicates the relative share and the growth rate of employment in six occupational categories in Montreal and Toronto and the eight-CMA group over the study period. With 14.7% of its employed workforce in managerial & administrative occupations in 1996, Montreal finds itself behind both Toronto (17.6%) and the eight-CMA group (16.2%). In fact, Montreal places fifth among the eight CMAs (not shown); Toronto is in second place, behind Ottawa-Hull (18.5%). The gap between Montreal and Toronto is considerably narrower (8.8% vs. 9.0%) in terms of science & engineering occupations; Toronto and Montreal are in fourth and fifth place, respectively, behind Ottawa-Hull (13.8%). When these two occupational categories are considered together

(a group that we refer to as “high information content” occupations), Montreal (23.5%) descends to the sixth position among the eight CMAs, ahead of Edmonton and Winnipeg only; Toronto (26.6%) finds itself in third place behind Ottawa-Hull (32.2%) and Calgary (27.5%). Among the other occupational categories, the profiles of Montreal and Toronto are essentially similar, with the exception of education & health occupations, where Montreal displays a higher percentage than Toronto (14.4% vs. 12.0%). In terms of growth rates, the major difference between Montreal and Toronto is in the managerial & administrative category, where employment in Toronto has grown much more rapidly (120.0% vs. 95.8%). In sum, where both relative shares and growth rates are concerned, the principal gap between Montreal and Toronto involves the economically significant managerial & administrative category, where Montreal not only finds itself lagging behind Toronto but also continuing to lose ground. It is further interesting to note that when *private sector* employment only is considered (i.e., total employment minus the education, health & social services, and public administration sectors; this analysis is not shown), the gap between Toronto and Montreal remains. The effect of this modification, however, is to propel Toronto to the head of the eight CMAs with respect to the managerial & administrative occupations; Montreal remains in fifth position.

Table 4 – Occupational structure and growth rates: Montreal, Toronto and 8 large CMAs, 1981-1996

Occupation		Montreal		Toronto		8 CMAs	
		emp. share (%)	gr. rate (%)	emp. share (%)	gr. rate (%)	emp. share (%)	gr. rate (%)
Managerial & administrative	1981	8,9		10,0		9,5	
	1996	14,7	95,8	17,6	120,0	16,2	116,1
Science & engineering	1981	5,6		6,4		6,6	
	1996	8,8	85,6	9,0	76,0	9,3	77,6
SUB-TOTAL: HIGH INFORMATION CONTENT	1981	14,5		16,4		16,1	
	1996	23,5	91,9	26,6	102,9	25,5	100,3
Education & health	1981	12,2		9,9		11,0	
	1996	14,4	40,7	12,0	52,0	13,0	48,3
Clerical & related	1981	22,2		24,4		23,2	
	1996	17,7	-5,4	17,3	-11,5	16,9	-8,2
Sales & Service	1981	21,8		21,2		22,3	
	1996	24,5	33,2	24,3	43,2	25,5	43,9
Blue collar	1981	29,3		28,2		27,4	
	1996	19,9	-19,2	19,8	-12,4	19,0	-12,4
ALL OCCUPATIONS	1981	100,0		100,0		100,0	
	1996	100,0	18,7	100,0	24,8	100,0	25,9

The occupational structure found within each of the four major metropolitan functions examined in the previous section also merits examination. By focusing on the high information content occupations within the major metropolitan functions, one is able to develop a better idea of the distribution of “strategic” employment. As indicated by Table 5 and by Figure 3, across all of the metropolitan functions, Montreal’s share of managerial & administrative employment is consistently lower than that of both Toronto and the eight-CMA group. The gap between Toronto and Montreal is widest in the case of the aggregated set of four functions, and less pronounced in the case of culture & media and high technology services. On the other hand, Montreal’s share of scientific & engineering employment surpasses that of Toronto in the high technology function (in aggregate, as well as in manufacturing and services individually), in culture & media, and in the total of the four functions (Figure 4). Note that Montreal’s share of scientific & engineering employment exceeds that of both Toronto and the eight-CMA group in the case of high technology services and culture & media. Finally, where the aggregated group of “high information content” occupations is concerned (Figure 5), Montreal is again generally characterized by employment shares that are lower than those for both Toronto and the eight-CMA group. There are two exceptions, however: the individual components of the high technology function; in high technology services Montreal’s employment share is the highest (77.9%); and in high technology manufacturing Montreal’s employment share (43.6%) merits a second position behind the eight-CMA group.

Table 5 – Occupational structure of metropolitan functions, Montreal, Toronto and 8 large CMAs, 1981-1996

Function		Montreal			Toronto			8 CMAs		
		(1)	(2)	(1+2)	(1)	(2)	(1+2)	(1)	(2)	(1+2)
		man & adm (%)	sci & eng (%)	total (%)	man & adm (%)	sci & eng (%)	total (%)	man & adm (%)	sci & eng (%)	total (%)
Culture & media	1981	8,9	3,1	12,0	10,4	2,4	12,8	9,8	2,7	12,5
	1996	12,9	3,6	16,5	14,0	3,4	17,4	13,3	3,3	16,6
Distribution & marketing	1981	12,4	2,0	14,4	14,9	3,2	18,1	13,3	2,5	15,8
	1996	20,2	5,7	25,9	24,4	7,8	32,2	21,6	6,8	28,4
Command & control	1981	21,3	4,3	25,6	22,0	5,4	27,4	22,6	4,7	27,3
	1996	38,3	4,2	42,5	42,0	7,6	49,6	41,2	5,9	47,1
High technology	1981	11,1	28,0	39,1	11,9	29,6	41,5	11,4	35,2	46,6
	1996	13,9	46,9	60,8	17,4	45,5	62,9	16,3	50,0	66,3
TOTAL:	1981	14,7	8,4	23,1	16,3	8,8	25,1	15,9	9,4	25,3
METRO FUNCTIONS	1996	22,8	14,5	37,3	28,1	13,9	42,0	26,1	14,9	41,0
High technology manufacturing	1981	10,7	15,5	26,2	11,6	14,8	26,4	11,2	15,6	26,8
	1996	12,5	31,1	43,6	17,1	26,1	43,2	15,9	31,7	47,6
High technology services	1981	11,8	55,3	67,1	12,4	55,2	67,6	11,6	58,8	70,4
	1996	15,3	62,6	77,9	17,6	57,9	75,5	16,6	60,7	77,3

Figure 3 – Percentage of managerial & administrative employment within metropolitan functions, 1996

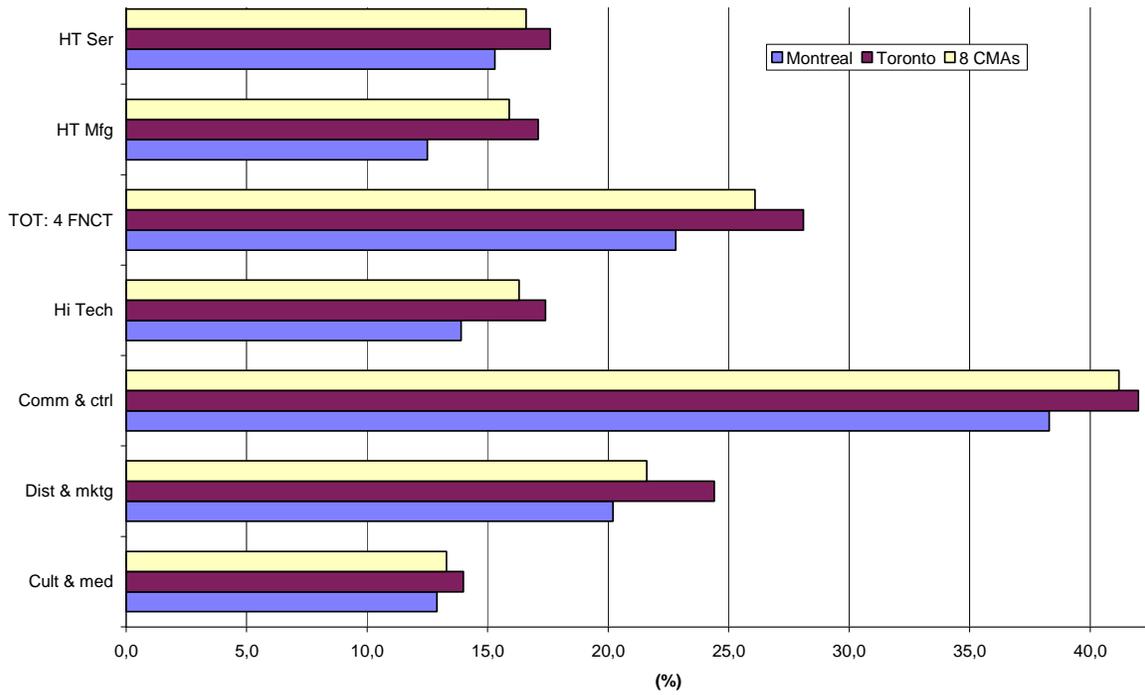


Figure 4 – Percentage of scientific & engineering employment within metropolitan functions, 1996

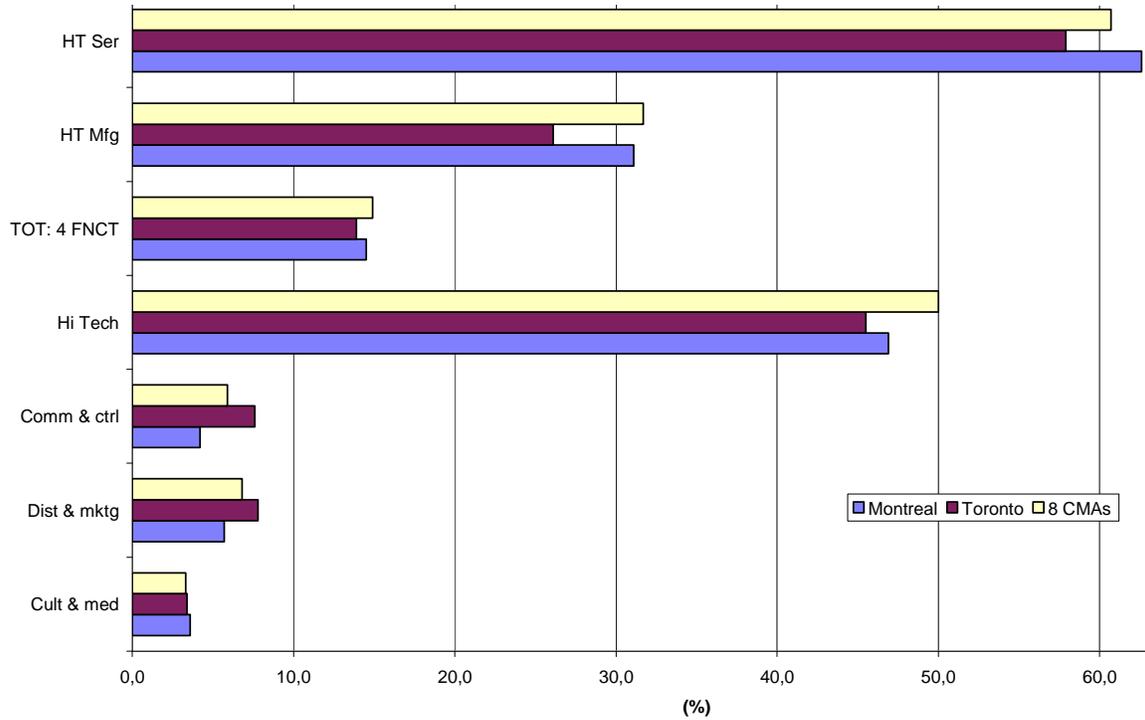
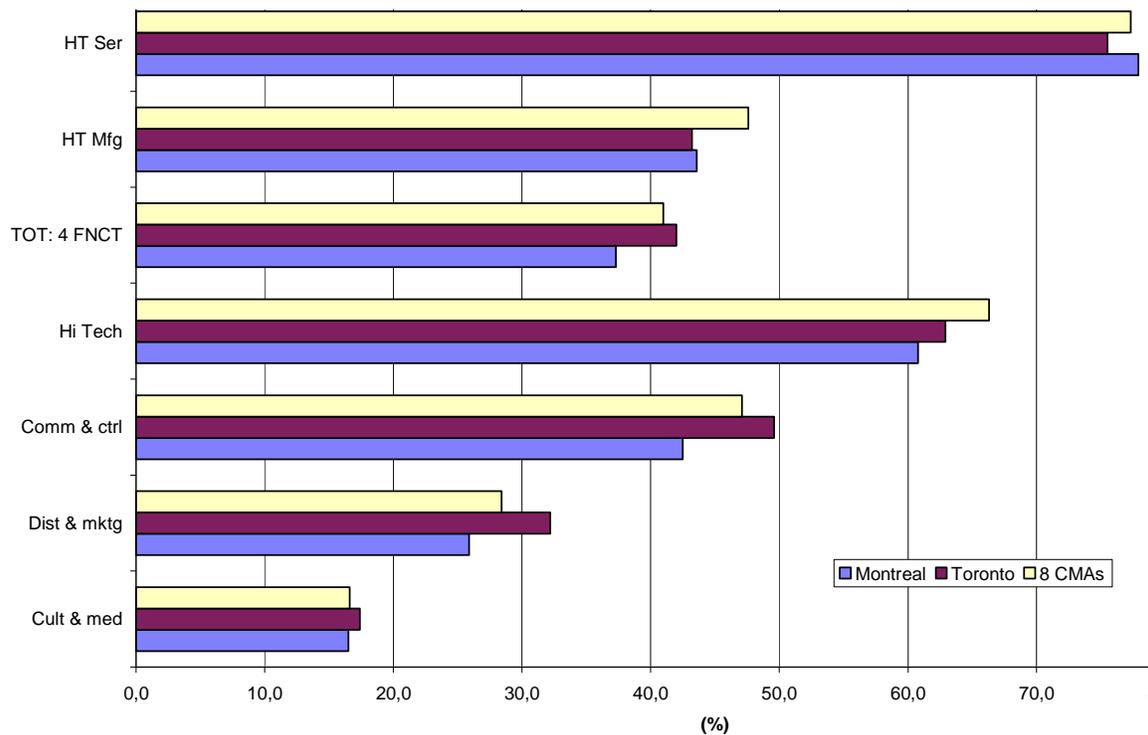


Figure 5 – Percentage of high information content (man. & admin. + sci. & eng.) employment within metropolitan functions, 1996



DISCUSSION AND CONCLUSION

In this section, we first offer some comments concerning the results of our analyses using the three indicators of economic structure of Montreal, and then discuss the implications of these results.

Sectoral structure

The sectoral restructuring of Montreal appears to be well under way and to be headed in the desired direction. In general, as in the case of Toronto, employment is growing in the “information” or “knowledge-based” economy (e.g., business services). On the other hand, employment decline is generally occurring among “traditional” or “low-tech” activities, especially in the manufacturing sector. These changes are consistent with those occurring in the majority of large metropolitan areas in developed countries. In some ways, the sectoral evolution of Montreal even appears to be more positive than that of Toronto; this is especially the case in terms of job loss within the manufacturing sector, where Toronto (unlike Montreal) has been losing ground in certain high technology industries.

Our analysis leads us to conclude that Montreal's oft-cited "employment problem" is not one of sectoral structure but, rather, of volume. If Montreal continues to experience unemployment rates that are considerably higher than that of Canada's other large metropolitan areas, it is not due to an out-moded sectoral structure nor due to an undesirable form of restructuring. In other words, the problem does not appear to be sector-specific. Rather, the problem is of a much more general nature: an insufficient number of jobs are being created across all sectors. The roots of this difficulty appear to have little to do with sectoral structure.

Functional structure

Montreal's weakness in *command & control* functions is particularly evident; its share of employment in this function merits only the fifth position among Canada's large CMAs in 1996. Over the study period, Montreal's share of total employment in this function has declined slightly to 7.4%, while Toronto's has increased to 11.3%. Thus, the command & control gap between Montreal and Toronto is growing. Further, with the exception of Edmonton, Montreal had the slowest employment growth rate for this function for the period 1981-1996 (13.5%, compared to 61.2% for Vancouver and 43.1% for Toronto). The image of Montreal as a secondary command & control centre within the Canadian economy is reinforced by our occupational analysis (see below), where Montreal's level of managerial & administrative employment is observed to be significantly below that of Toronto. The position of Montreal with respect to the *distribution & marketing* function is more positive; on the basis of a growth rate that is comparable to that of Toronto and to the eight-CMA group, in 1996 Montreal finds itself tied for second place with Vancouver (behind Toronto) in terms of share of total employment in this function. The relatively good performance of Montreal here is undoubtedly related to the growing differentiation of francophone and anglophone market areas.

Montreal also performs reasonably well in the *culture & media* function. On the basis of a growth rate that is situated midway between that of Toronto and the eight-CMA group, Montreal is in second position (after Toronto) in terms of share of total employment in this function. Interestingly, Montreal's share of scientific & engineering occupations within this function is the highest among the eight CMAs, suggesting that Montreal's activities are fairly sophisticated. The future of Montreal with respect this function seems to be fairly well assured, if only because of its culturally distinct hinterland. Montreal is also fairly well-positioned in terms of the *high technology* function, particularly where *manufacturing* activities are concerned. Montreal's share of employment merits a third place (after Calgary and Ottawa-Hull) in the combined set of high technology activities (manufacturing and services) and a first place finish (tied with

Ottawa-Hull) in high technology manufacturing. On the other hand, Montreal only finishes in fifth position with respect to high technology services.

Occupational structure

An analysis of occupational structure reveals that, as in the case of other large Canadian CMAs, Montreal and Toronto have both added a substantial number of high information content jobs. In relative terms, however, Montreal lags behind Toronto and three other CMAs. In particular, as noted above, the gap between Montreal and Toronto is both large and growing where the share of managerial & administrative occupations in total employment is concerned. Among all other occupational groups (including scientific & engineering occupations), however, the structures of Montreal and Toronto are relatively similar.

It appears that a division of labour has evolved between Montreal and Toronto, with the former specialising in certain types of scientific & engineering activities and the latter specialising in managerial and decision-making tasks. This division of labour is particularly evident within the major metropolitan functions. For example, the percentage of scientific & engineering personnel within Montreal's high technology manufacturing function is significantly above that of Toronto; on the other hand, Toronto is significantly ahead of Montreal in terms of the proportion of managerial & administrative employees within this function.

Conclusion

We now return to our point of departure: in relation to Toronto, and in the broader context of the eight largest Canadian CMAs, is Montreal distinct? In our view, the answer is no. It is clear that Montreal is somewhat different from Toronto according to certain indicators (e.g., relatively weaker in terms of its share of managerial & administrative occupations and command & control functions; relatively stronger in terms of manufacturing and, in particular, high technology manufacturing). In general, however, Montreal and Toronto are very similar where both structure and performance are concerned. Indeed, in terms of their share of employment in individual activities, the two largest CMAs often find themselves forced into the middle of the eight-CMA group by smaller "specialist" metropolitan regions such as Ottawa-Hull (managerial & administrative and scientific & engineering occupations) or Calgary (business services). Further, as we have seen, Montreal seems to be moving in exactly the same direction as Toronto and the other CMAs, with respect to sectoral and occupational structure.

If the roots of Montreal's now well-known economic difficulties (unemployment and resulting poverty head the list) are not to be found in sectoral or occupational structure, where does the problem lie? Here, the broader issue of a "distinct society"

may well come into play. Montreal seems to perform well in those activities (such as high technology manufacturing) that are not directly related to its role as a central place for a commercial hinterland, but less well in activities that are related to this role (e.g., financial services, business services). The limits to employment growth in classic metropolitan functions such as command & control and distribution & marketing are in large measure fixed by the size of a metropolitan area's hinterland. While New York or Toronto can count on much larger national hinterlands to support the expansion of various types of activities, Montreal's principal economic hinterland is now restricted to the province of Quebec. In order for Montreal's employment to grow in such strategic activities, firms must go beyond the natural hinterland and export to external (non-Quebec) markets. Services are much more difficult to export than are goods, however, since cultural and linguistic barriers enter into play. It is perhaps for this reason that Montreal has had a relatively large amount of success in high technology manufacturing, where the cultural aspect is less relevant. The problem for Montreal, however, is that the high technology manufacturing sector alone (with only 2.9% of total employment in 1996) cannot in the short or medium term create enough jobs to solve the unemployment problem.

We have elsewhere examined the phenomenon of Montreal's "amazing disappearing hinterland", referring to it as "the decline of the Montreal empire" (Coffey and Polèse 1993). In large measure, Montreal's loss of its historical national hinterland and subsequent decline to the status of Canada's second-largest metropolitan area is the direct result of the rise of complex social and economic forces (often referred to as "the quiet revolution") that all combine, in the eyes of many of its residents, to create a "distinct society" in Quebec. In addition to cultural issues and an official language law (which, *inter alia*, in principle requires firms with more than 50 employees to work in the French language), Quebec is also distinct in terms of having an administrative structure that parallels that of the federal government (e.g., its own Ministry of Revenue to collect its own taxes, and its own Ministry of Foreign Affairs). This parallel administrative structure is expensive to maintain, and the level of taxation of both individuals and firms is consequently higher than in most other provinces. Add to this situation the uncertainty created by constitutional issues – above all the prospect of Quebec's separation from the Canadian confederation -- and the result is a business environment that is somewhat less attractive than it might otherwise be. Indeed, given its location in the Province of Quebec, we can only marvel that the Montreal economy has done as well as it has; this is perhaps the best proof of its underlying strength.

In sum, we seem to have a non-distinct metropolis in a possibly distinct (or, at least, slightly unusual) society.

REFERENCES

Chung, J. 1974. "La nature du déclin économique de la région de Montréal", *L'Actualité économique*, 50: 410-435.

Coffey, W. and M. Polèse. 1989. "The Role of Cultural Barriers in the Location of Producer Services: Some Reflections on the Toronto-Montreal Rivalry and the Limits to Urban Polarization", *Canadian Journal of Regional Science*, 14: 433-446.

Coffey, W. and M. Polèse. 1993. "Le déclin de l'empire montréalais: regard sur l'économie d'une métropole en mutation", *Recherches sociographiques*, 34: 417-437.

Côté, M. 1991. Un cadre d'analyse pour le Comité ministériel permanent de développement du Grand Montréal. Montréal: Secor.

Higgins, B. 1986. *The Rise and Fall of Montreal?* Moncton: Institut canadien pour le développement régional.

Lapointe, A. and S. Fortin. 1998. *L'économie du savoir marquerait-elle la fin du déclin pour Montréal?* Montréal: Centre d'études sur les nouvelles technologies et les organisations, École des Hautes Études Commerciales.

Polèse, M. 1990. "La thèse du déclin économique de Montréal, revue et corrigée", *L'Actualité économique*, 66: 133-146.