DOMINANT NATIONAL CENTERS: A COMPARATIVE ANALYSIS OF THE HEADQUARTERS COMMUNITIES OF NEW YORK AND TORONTO

Murray D. Rice
Department of Geography
University of North Texas
Denton, Texas 76203

ABSTRACT

This paper analyzes and compares the headquarters communities of the two dominant, national corporate centers in North America. As the pre-eminent cities of their respective countries, New York and Toronto fulfill an important role within their national urban and economic systems. Both cities host businesses and institutions that determine and symbolize the direction of their respective national economies. The analysis of Toronto and New York examines recent trends in the growth and change of the headquarters hosted by the two cities. The results show that the cities are comparable in some ways, such as in their common dominance among the financial institutions of their countries. However, in other ways the headquarters community in each appears to be following distinct paths, as in the distinctive location tendencies of the most rapidly-growing firms in the two cities. The paper presents an analysis and comparison of the corporate community in each city, and provides some interpretation as to the meaning of the results for further development of theory in economic geography.

Key words: New York, Toronto, headquarters location, location quotient.

"Knowledge of Canada or the United States is the best way to gain insight into the other North American country. Nations can be understood only in comparative perspective. And the more similar the units being compared, the more possible it should be to isolate the factors responsible for differences between them. Looking intensively at Canada and the United States sheds light on both of them." (Lipset 1990 page xiii)

INTRODUCTION

Corporate headquarters are a highly visible sign of the status of cities. Economically, the presence of head offices contributes a variety of advanced skills and high-paying jobs to the local workforce. Socially, major corporations are among the most important contributors to local foundations and charities, through their funding of museums, universities, and other important community projects. Architecturally, corporate headquarters and key regional offices contribute some of the major landmarks that define a city's identity, as with the TransAmerica pyramid of San Francisco, or the Prudential Center and the John Hancock tower in Boston. The head offices of corporations hold both tangible and symbolic value for the cities in which they exist.

There are no better examples of corporate headquarters cities in North America than New York and Toronto. New York, along with Tokyo and London, is one of an elite group of world cities that collectively dominate the functioning of the world economy and society (Beaverstock et al. 2000). New York's collection of head offices is unparalleled within the United States in both its size and its breadth (Klier and Testa 2002). Toronto, by comparison, is a second-tier player in the world system of cities. However, it is no less important than New York when considered within the context of its own national economy, as it too hosts the headquarters of many firms of national and international significance (Rice 2004; Semple 1996). Beyond its business community, Toronto is the country's social and cultural leader, and news and media hub. Toronto is the Canadian counterpart of New York.

Because of the importance of New York, Toronto, and their associated metropolitan regions within their respective national economies, analysis of the companies and trends characterizing their headquarters communities sheds light not only on the cities themselves, but the larger nations and economies that they lead. This study focuses on the degree of concentration of corporate power as a key indicator and point of comparison for the urban hierarchies and regional economies of Canada and the United States. To what extent do New York and Toronto simply dominate their respective national economies? Dominance, as used here, might be thought of as a measure of the degree to which a city can host and maintain the largest and most important firms in an industry or economic sector, or in the economy taken as a whole (see also Holloway and Wheeler 1991). Such a definition suggests further questions. In which sectors of the economy is it apparent that the two cities are *not* playing the lead role? How similar are the corporate communities of New York and Toronto, in terms of their sectors of national dominance and recent development trajectories? The strength and status of the two national economic focal points is an important measure of the comparative development of North America's two industrialized economies.

The following research analyzes the corporations of New York and Toronto, from a national and comparative perspective, by addressing questions in three general areas of inquiry. First, to what extent does each city dominate in headquarters hosting among the economic sectors that are most central to the functioning of the overall economy? This might be seen as an investigation of the ability of the two national cities to strategically dominate the specific sectors that account for the most important of business resources, such as information and capital. Second, how does each city perform in attracting and hosting large-firm headquarters in the most dynamic of North American industries? This question studies the ability of New York and Toronto to continuously adjust their corporate communities, attracting the elite and most desired of headquarters in the country. Third, how do the two national cities compare in terms of their ability to generate and host the headquarters of individual, rapidly-growing firms? This final question examines small, but nimble, firms – the end of the business scale opposite to the corporate giants ("Establishment firms") that comprise the focus of the first two questions. Put another way, this last area of analysis investigates the degree to which the two cities are *reinventing* their local economies through innovation, and taking part in North America's emerging, "Next Wave" economy (Rice 2004, 2005).

The analysis presented here attempts to provide insight into the ongoing, evolutionary development of New York and Toronto. By addressing these two cities, the paper also studies issues of importance to the national development of Canada and the United States. The study begins with a survey of the literature and history connected to this research, followed by an explanation of the New York and Toronto case study and results, and concluding with a discussion of the meaning of the results for the development of theory in economic geography.

BACKGROUND

Quaternary Location Literature

This research finds its conceptual foundation in the field of business location analysis. The geographic analysis of business locations and strategies is a key thread of investigation within urban and economic geography today (Graff 2006; Rice and Lavoie 2005; Meyer and Green 2003), although location analysis as a field extends to the early work of von Thünen (1826) and Weber (1909). In recent times, location research has conceptualized the distribution of modern business as characterized by market forces that create concentrations of wealth and opportunity. Swyngedouw's (2004, 1997) "glocalization" concept captures this phenomenon, dealing with the growth of firms that are simultaneously transnational in reach but localized in impact. It is only a fraction of regions worldwide that attract anything but the most basic of activities associated with these corporate empires. Of these favored places, it is a much smaller subset yet that attracts the most elite of corporate decision-making functions. Toronto and New York are prime examples of this corporate concentration, as these cities represent the pinnacle of business activity within two of the wealthiest nations on earth.

Weber's (1909) early conceptualization of the *central organizing* function within the economy inspired an addition to the location analysis tradition that addresses the prime venues and actors in the global concentration of elite corporate activity (Semple, personal communication). Focused on the modern embodiment of Weber's "central organizing stratum", Semple (1985; Semple and Phipps 1982) proposed the creation of *quaternary place theory* to explain the location and geographic evolution of economic decision-making activities. Quaternary location theory deals with corporate headquarters functions and related activities.

Semple's key contribution to the development of quaternary place theory is his formulation of a general model of quaternary place evolution within a continental economy. Semple's (1985) evolutionary model features two simultaneous trends: the continuous *growth* of the economy and the system of cities hosting quaternary functions, and a bell-curve *progression* in spatial character from an initial dispersion of quaternary activity, through an intermediate phase of increasing concentration of activity in a dominant national center, and on to an ultimate configuration of dispersion in a series of regional centers throughout the country.

Although it has been criticized as lacking insight beyond the developmental phases it envisions (Rice 2005), the Semple model has proved useful in describing the progress of the United States quaternary system. The model provides a foundation for hypothesis of the future development of quaternary centers throughout the country. Research over the past two decades (O'Hagan and Green 2004; Holloway and Wheeler 1991; Semple and Phipps 1982) has demonstrated a broad degree of agreement between the Semple model and the evolution of the United States quaternary system. This research indicates that the 1950s saw the US pass through a period characterized by the increasing dominance of a single, national center, and that the country has now progressed well into the emergence of multiple, regional corporate control cities. By contrast, the Canadian quaternary system appears to be lagging its American counterpart, with Toronto maintaining a strong hold on the headquarters of the largest firms in Canada (O'Hagan and Green 2004; Semple 1996).

Outside of a focus on the largest firms, two other strands of research relevant to quaternary location theory have emerged in recent years. A first area relates to the role of subsidiaries and corporate structure. An acknowledgement of the importance of internal corporate structure and divisional form is important in understanding the true geographic distribution of decision-making capabilities within the modern corporation (Martz and Semple 1985). Transnational corporations and their national subsidiaries in countries around the world are the most prominent examples of geographic complexity in corporate structure. The degree to which these corporations allow their subsidiaries latitude for decision-making at the national level is one indicator of geographic development in terms of quaternary activities. Poon and Thompson (2003) developed a useful categorization of subsidiaries in this dimension. At one end of the scale, *quiescent* subsidiaries (Taggart 1998) are linked to branch-plant behavior, characterized by a lack of local product development or other information-intensive activity. These firms simply carry out the plan communicated from above. At the other end, *developmental* subsidiaries have a greater ability to control their operations and to development new products and services for sale in their national market. The presence of international subsidiaries in a national economy represents a complicating factor in terms of determining the ultimate location of corporate control, but as many subsidiaries operating in the developed world follow the developmental model above, their presence cannot be ignored.

A second area of quaternary-related research, examining the headquarters locations of the *most rapidly-growing firms*, has demonstrated that these firms have a spatial distribution different from their large-company counterparts in both the US and Canada (Rice 2004, 2005; Lyons 1995; Wheeler 1990). This research has represented a suburban orientation among fast-growing companies in both countries, while the largest firms continue to have more of a bias toward central-city locations. Such findings are important because the fastest-growing component of the economy is dominated by young firms playing key roles in economic restructuring (Lyons 1995). Rice (2004, 2005) has argued that the study of such firms provides insight into possible directions for the future development of the economy as a whole; thus, such firms are an important element of the present study's view of Toronto and New York. Comparison of the status of the evolving geographic distributions of both types of firms (large and rapidly-growing) in both countries is also a logical next step for quaternary research, given the emphasis of previous work focused on the individual countries and firm types.

Toronto and New York continue to occupy important places within their respective national economies and urban systems, regardless of differences in development stages. The fact that the US is well into a phase of headquarters dispersion, while Canada continues to concentrate its key corporate decision-makers in Toronto, makes for a useful point of comparison. Given that both cities are premier centers within their respective countries, but are at different stages in their evolving dominance, how do the two nationally-dominant cities compare? What are their similarities, and what are the differences? Before addressing this comparison further, the paper provides some background for understanding the head office activities of New York and Toronto.

New York's Evolving Dominance

New York has a long history of leadership over the American economy. The city's emergence into the primary position dates to the early expansion of the American nation away from the Atlantic seaboard and into the interior of the continent. Initial competitors for national supremacy, including Boston, Philadelphia, and Baltimore, all suffered from poor land connections over rugged terrain to the rapidly-developing interior. The initial benefit conferred by New York's Hudson-Mohawk valley link to upstate New York, augmented and extended by the 1825 opening of the Erie Canal, gave the city the advantage it needed to emerge above its competition. By 1840, New York's population was more than four times greater than any other city in the nation (Knox and McCarthy 2005). Through the 19th century, immigration and technological advancement saw New York grow as a business and financial center. By 1900, New York's headquarters strength could be seen in its hosting of 69 of the largest 185 conglomerate corporations in America (Schultz and Simmons 1959).

The peak of New York's headquarters influence occurred around 1950 (Semple and Phipps 1982). Although New York's post-1950 decline began slowly, periodic crises impacting the city and its broader economy have resulted in the widely-observed headquarters decline of the city. Quante's (1976) landmark study documented a surge in *Fortune 500* headquarters movement out of the city from 1968-1974. Although suburbanization of headquarters has been more substantial than relocation to other metropolitan regions, a sustained net outflow of headquarters from the region indicates that a geographic restructuring of corporate decision-making activity has taken place for both New York and the country.

Since the 1970s, New York has seen a succession of downturns and rallies. Population decline and economic stagnation in the early 1970s gave way to a period of expansion marked by a strong stock market and an influx of foreign investment from 1977-1987 (Schwartz 1992). The stock market crash of 1987 and the collapse of the junk bond market in the early 1990s led to further downturns for New York's corporate sector, but the sustained economic expansion of the 1990s led to yet another period of prosperity for the city and region. The "dot com crash" of 2000 and the September 11, 2001 terrorist attacks marked the beginning of the most recent round of uncertainty for New York. In New York particularly, firms began to examine the costs and vulnerabilities associated with their current inner-city locations (Leon 2003). A city already experiencing intense competition is seeing further challenges to its premier status.

Canada's Changing Urban Hierarchy

Toronto is Canada's premier corporate center today, but this was not always the case. Before the Establishment of the Canadian confederation in 1867, a number of centers played key roles in the economy of British North America. A contest for national supremacy emerged between Lower Canada (Quebec) and Upper Canada (Ontario), with the colonial capital moving between Montreal, Toronto, and other cities, before finally settling in Ottawa just prior to the birth of the nation. By the early 1900s it was actually Montreal that had emerged as the clear business leader among Canadian cities. However, as the Canadian population grew, shifted westward, and became increasingly English-speaking, Montreal saw its influence reduced (Semple 1996). Toronto's centrality to the southern Ontario manufacturing belt, and connection to the growing western provinces via a common language bond, gave it a strategic advantage that propelled it to national prominence by the 1970s.

Once it gained the national lead, Toronto rapidly consolidated its position. By the 1990s, Toronto was the clear Canadian leader. In terms of the corporate hierarchy, Meyer and Green (2003) showed that Toronto in 2001 hosted 33.7% of the 2,786 headquarters of Canadian firms in their study, while second-place Montreal hosted 25.8%. Rice (1996) examined the dynamics that drove Toronto's rise to the top of the Canadian corporate hierarchy by placing head office location within the context of the evolution of the Canadian economy. Rice showed that, from 1970-1990, Toronto gained a stronger headquarters presence among virtually all growing sectors of the Canadian economy, while sectors declining in their share of the national economy overwhelmingly focused their growth in other centers across the country. Toronto reached a new apex in economic performance in the early 1990s.

Recent events, however, indicate the possibility for change in Toronto, and the Canadian quaternary system in general. The "dot com crash" and post-September 11 economic collapse had a particular impact on Toronto. The business downturn of 2000-2001, greater difficulties associated with travel, and the vulnerabilities highlighted by terrorism caused Toronto-based businesses to reassess their corporate locations. Following these events, in 2004 Imperial Oil announced its plan to relocate its headquarters from Toronto to Calgary. Although this shock involved the relocation of only one firm, Imperial Oil's previous status as one of the longstanding, elite members of the Toronto corporate community led to widespread questioning of the region's ranking as a corporate location (Kirby and Cattaneo 2004). While the above does not provide conclusive evidence of the beginning of a lasting decline in the status of Toronto, it does indicate that further investigation is warranted to determine if early signs of a corporate decentralization are indeed evident.

CASE STUDY

Data

The study uses a variety of datasets in its analysis. Following Rice's (2004, 2005) terminology, this research examines the *Establishment* group of firms, the largest companies in the United States and Canada as ranked by revenues for both 1996 and

2004, and the *Next Wave* component of the economy, the fastest-growing businesses in the United States and Canada. As the fast-growing group of firms is highly dynamic, and even a single year of data for these businesses yields insight into economic change, the study focuses on data for Next Wave firms for the year 2004 alone. The study selects the analysis years of 1996 and 2004 with reference to the economic downturn of 2000-2001. Analysis of the late 1990s alone would build in the "dot com" bubble without adjustment, while analysis of the 2000s alone would provide a picture only of retrenchment and adjustment. Use of the 1996-2004 study period encompasses the variety of economic conditions that have impacted the North American economy in recent years.

In the United States, data for Establishment firms came from a combination of resources, including data from Dun & Bradstreet's *Key Business Directory* and the LexisNexis *Corporate Affiliations* database, while US Next Wave data consist solely of information extracted from the *Inc 500* list of companies. These data sources provided information on location, economic sector, and financial results for the top 2,200 US Establishment firms by annual revenues for 1996 and 2004, and the top 500 US Next Wave firms by revenue growth rate for 2004. In Canada, data for Establishment firms came from the *Financial Post 500*, while data for the Canadian Next Wave come from the annual *Profit* magazine ranking of fastest-growing Canadian companies. These Canadian sources provided the top 800 Establishment firms in Canada for 1996 and 2004, and the top 200 Next Wave firms for 2004.

While the data sources listed above are among the best available, gaps do exist in coverage. Private companies and co-operatives may be under-represented, and individual companies that are late in reporting their annual results may not be represented at all. Data for the Next Wave in both Canada and the US come from publications that rely on firms voluntarily providing their financial information. While the prestige factor associated with an *Inc* or *Profit* listing makes it likely that most eligible companies put themselves up for consideration, it is possible that some publicity-shy firms may decline the opportunity. However, considering these possible limitations, the databases assembled for this research provide an economic profile of the highest quality.

Unlike the annual *Fortune 500* compilation of large companies, the Establishment datasets analyzed here for both the US and Canada include both *ultimate parent companies* based inside the country and the *top national subsidiaries* of companies controlled by firms based in other countries. The two national Establishment databases both include international subsidiaries because omission of these firms would lead to an under-weighting of certain sectors of the two national economies. For example, consideration of the Canadian automobile sector without General Motors of Canada would be hopelessly flawed, and a national economic profile that ignores the automotive industry in Canada would be completely inaccurate. Inclusion of top national subsidiaries of foreign parent firms ensures a balanced picture of each national economy. However, to eliminate double-counting of corporations and their subsidiaries within each national database, this study does not consider regional or divisional headquarters when the parent company is located in the same country. The two Establishment databases include information on headquarters location and revenues for every large firm in the US and Canada, regardless of whether those headquarters are associated with an ultimate parent firm or an international subsidiary.

Likewise, for comparability with the US data, public firms were eliminated from the Canadian Next Wave list to create a private-only ranking, as the *Inc 500* consists only of privately-held companies. This list filtering leaves 156 of the original 200 Canadian Next Wave firms in the analysis for 2004.[1] Given the small size of the Canadian economy in comparison with its US counterpart, use of substantially fewer Canadian than US next wave firms, as above, is justifiable.

For both the Establishment and the Next Wave, the study focuses on corporate revenues as an indicator of economic activity. For all firms, whether ultimate parents or subsidiaries, the study analyzes the global revenues of each firm in question. For parent firms like General Motors, this means that the study revenues may be derived from worldwide sources, while for many of the subsidiaries analyzed here, study revenues are derived principally from Canada or the US. The common element behind all firms in the study is their headquarters location in North America. Collectively, both the parent and subsidiary firms analyzed here are necessary to represent well the sectors of the two major North American economies.

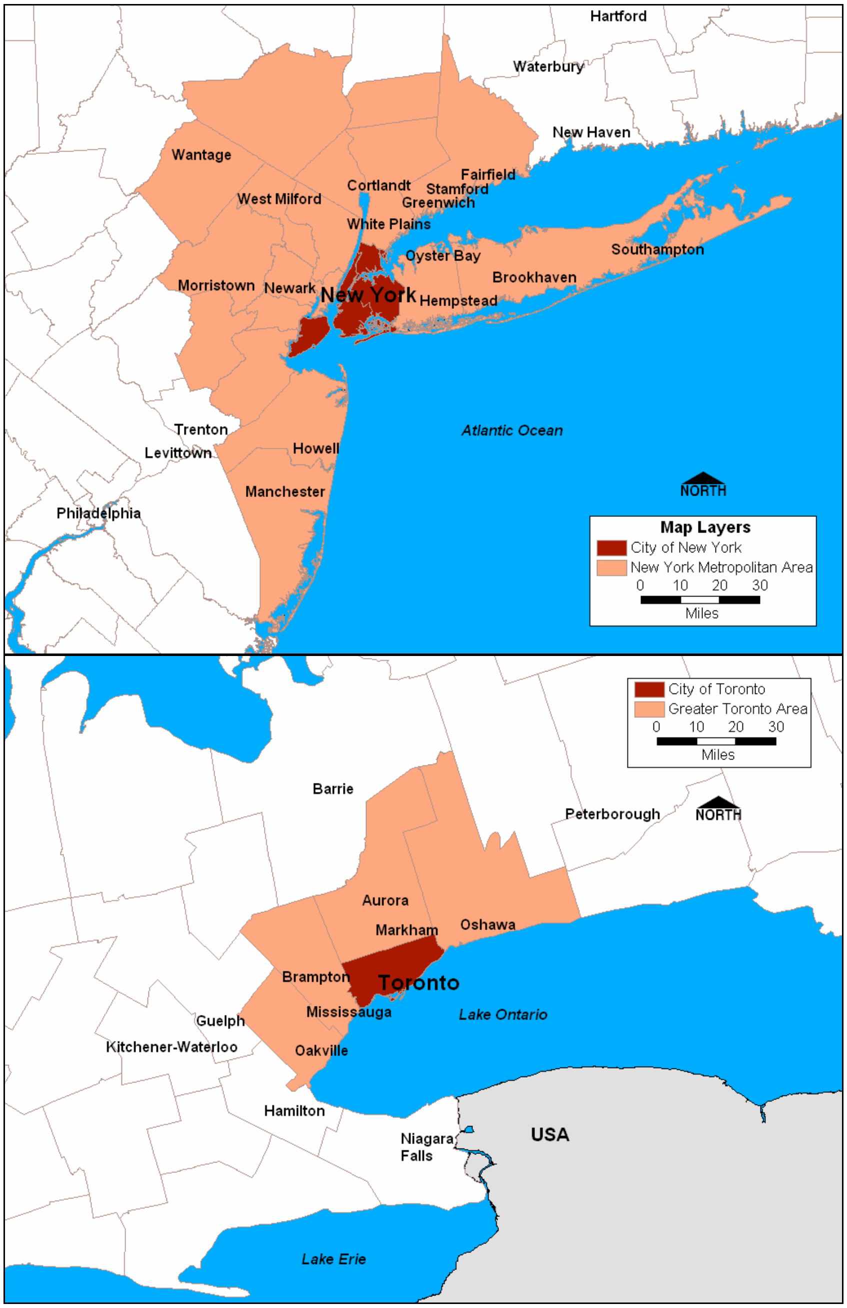
For context, comparison, and definition of the two metropolitan areas, Figure 1 maps the New York and Toronto regions. The maps represent the size and extent of the two urban regions, using the standard metropolitan area limits defined by the US Census for New York and Statistics Canada for Toronto. The maps in Figure 1 define the urban cores (the actual cities of New York and Toronto) and the outlying suburban areas comprising the remainder of the two regions. Selected places outside the urban cores but inside the respective metropolitan areas, such as Fairfield, Stamford, and Greenwich on the New York map and Markham and Mississauga in the Toronto region, are very important hosts of headquarters and other corporate activity.

---

[1] For analysis by sector, I assigned each Establishment and Next Wave business in the study to one of 16 sectors I defined based on the firms' North American Industrial Coding System (NAICS) codes:

1. energy and resources (NAICS codes 111, 112, 115, 211, 212, 213)
2. transportation, trades, utilities (231, 236, 237, 238, 481, 482, 483, 484, 485, 486, 487, 488, 492, 493)
3. food, textile, and related manufacturing (311, 312, 313, 314, 315, 316)
4. forestry product and related manufacturing (322, 323, 337)
5. machinery and metal manufacturing (331, 332, 333)
6. plastic, glass, and miscellaneous manufacturing (324, 326, 327, 339)
7. high technology and chemical manufacturing (325, 334, 335, 336)
8. wholesale (422, 423, 424, 425)
9. retail (441, 442, 443, 444, 445, 446, 447, 448, 451, 452, 453, 454)
10. communication (511, 512, 515, 517, 518, 519)
11. finance, insurance, and real estate (FIRE) (522, 523, 524, 525, 531, 532, 533, and all diversified financial holding companies from 551)
12. business services (541, 561, 562)
13. diversified/holding companies (all non-financial holding companies from 551, as well as other firms with substantial operations in multiple sectors based on the Corporate Affiliations database)
14. education and health services (611, 621, 622, 623, 624)
15. restaurants, accommodation, and recreation (711, 713, 721, 722)
16. other services (811, 812, 813, 921)

Figure 1: The Two Metropolitan Areas, 2004



Source: Maps created by the author from US and Canadian metropolitan area definitions

Focusing on revenues as an indicator of economic activity, Tables 1 (US firms) and 2 (Canadian firms) briefly explore the use of revenues compared to assets, another important measure of corporate size or influence within the economy. The firms listed in the two tables represent the apex of power in the US and Canada. The tables show that, although the revenue and asset rankings are not the same, there is much in common between the two measures. Comparing within each country, the two US top-ten lists share four members, as do the two Canadian lists. In both tables, New York (Table 1) and Toronto (Table 2) play central roles: in the four top-ten lists, the two metropolitan areas account for 4, 7, 7, and 6 firms respectively. While use of one measure over another will vary the corporate ranking, as in the emphasis of the asset ranking on financial firms, this study chooses for simplicity to use the single, revenue indicator of business volume.

Table 1: Top United States Establishment Firms by Revenues and Assets, 2004

National Rank	Company Name	City	Revenues, 2004 (US$1000s)
1	Wal-Mart Stores	Bentonville, AR	$288,189,000
2	Exxon Mobil	Irving, TX	$270,772,000
3	General Motors*	Detroit, MI	$193,517,000
4	Ford Motor	Dearborn, MI	$172,233,000
5	**General Electric***	**Fairfield, CT**	**$152,363,000**
6	ChevronTexaco	San Ramon, CA	$147,967,000
7	ConocoPhillips	Houston, TX	$121,663,000
8	**Citigroup***	**New York, NY**	**$108,276,000**
9	**American International Group***	**New York, NY**	**$98,610,000**
10	**International Business Machines**	**Armonk, NY**	**$96,293,000**
National Rank	**Company Name**	**City**	**Assets, 2004 (US$1000s)**
1	**Citigroup***	**New York, NY**	**$1,484,101,100**
2	**J.P. Morgan Chase**	**New York, NY**	**$1,157,248,000**
3	Bank of America	Charlotte, NC	$1,110,457,000
4	**American International Group***	**New York, NY**	**$800,000,000**
5	**Morgan Stanley**	**New York, NY**	**$775,410,000**
6	**General Electric***	**Fairfield, CT**	**$750,330,000**
7	**Merrill Lynch**	**New York, NY**	**$648,059,000**
8	**Goldman Sachs**	**New York, NY**	**$531,379,000**
9	Wachovia	Charlotte, NC	$493,324,000
10	General Motors*	Detroit, MI	$479,603,000

Firms in bold are located in the New York metropolitan area.
* Firms appearing in both lists above

Source: Dun & Bradstreet, Corporate Affiliations

Table 2: Top Canadian Establishment Firms by Revenues and Assets, 2004

National Rank	Company Name	City	Revenues, 2004 (C$1000s)
1	**General Motors of Canada**	**Oshawa, ON**	**$37,144,552**
2	Alcan	Montreal, QC	$32,375,384
3	**George Weston**	**Toronto, ON**	**$29,798,000**
4	**Manulife Financial***	**Toronto, ON**	**$27,150,000**
5	**Magna International**	**Aurora, ON**	**$26,869,552**
6	**Royal Bank of Canada***	**Toronto, ON**	**$25,204,000**
7	Power Corp. of Canada*	Montreal, QC	$24,323,000
8	**Imperial Oil**	**Toronto, ON**	**$22,408,000**
9	**Sun Life Financial***	**Toronto, ON**	**$21,748,000**
10	Bombardier	Montreal, QC	$20,511,000
National Rank	**Company Name**	**City**	**Assets, 2004 (C$1000s)**
1	**Royal Bank of Canada***	**Toronto, ON**	**$429,196,000**
2	**The Toronto-Dominion Bank**	**Toronto, ON**	**$311,027,000**
3	**The Bank of Nova Scotia**	**Toronto, ON**	**$279,212,000**
4	**Canadian Imperial Bank of Commerce**	**Toronto, ON**	**$278,764,000**
5	Bank of Montreal	Montreal, QC	$265,194,000
6	**Manulife Financial***	**Toronto, ON**	**$184,246,000**
7	Caisse de depot et placement	Montreal, QC	$147,200,000
8	**Sun Life Financial***	**Toronto, ON**	**$107,757,000**
9	Power Corp. of Canada*	Montreal, QC	$105,940,000
10	Mouvement des caisses Desjardins	Levis, QC	$103,574,000

Firms in bold are located in the Greater Toronto Area.
*Firms appearing in both lists above

Source: Financial Post

Table 3 provides a high-level comparison between the two cities by representing the composition of the headquarters communities and the leading firms in New York and Toronto.[2] The table indicates the importance of key sectors such as "high technology and chemical manufacturing" and "finance, insurance, and real estate" among the businesses in both cities. However, two key notes of contrast appear on close inspection of the table. First, Toronto appears to be vastly more important for Canada among the top Establishment firms in this study than New York is within the US. This is shown by the fact that the New

[2] Although Imperial Oil announced its relocation to Calgary in early 2004, this move took several months to accomplish. This analysis lists it as a Toronto firm for 2004.

York region accounts for 303 firms from the 2200-firm US database, while the Toronto region hosts 307 firms out of the top 800 in Canada. Second, while both US and Canadian databases include international subsidiaries, such firms appear to be much more important for Toronto and Canada than for New York and the US. This is shown by the fact that the largest firm in five of 16 sectors in Toronto is an international subsidiary, while this is true in no sector in New York.

Table 3: Headquarters Communities of New York and Toronto, 2004

	New York Metropolitan Area		Greater Toronto Area	
Sector	**Number of Firms, 2004 (% of Total)**	**Region's Largest Firm (2004 Revenues)**	**Number of Firms, 2004 (% of Total)**	**Region's Largest Firm (2004 Revenues)**
Energy & Resources	3 (1%)	Schlumberger	20 (6%)	Imperial Oil*
Transportation, Trades, and Utilities	11 (4%)	Turner Construction	19 (6%)	Aecon Group
Food, Textile, and Related Manufacturing	12 (4%)	Altria Group	17 (6%)	Maple Leaf Foods
Forestry Product and Related Manufacturing	8 (3%)	International Paper	2 (1%)	Masonite International
Machinery and Metal Manufacturing	12 (4%)	American Standard	19 (6%)	Gerdau Ameristeel*
Plastic, Glass, and Misc. Manufacturing	7 (2%)	Amerada Hess	1 (0%)	Trillium Health
High Tech & Chemical Manufacturing	46 (15%)	Pfizer	70 (23%)	General Motors Canada*
Wholesale	26 (8%)	Bunge	14 (4%)	Mitsui (Canada)*
Retail	33 (11%)	Toys 'R' Us	38 (12%)	Wal-Mart Canada*
Communication	30 (10%)	Verizon	16 (5%)	Thomson
Finance, Insurance, Real Estate	50 (16%)	Citigroup	61 (20%)	Manulife Financial
Business Services	36 (12%)	IBM	14 (4%)	Deloitte & Touche
Diversified/Holding Companies	12 (4%)	General Electric	4 (1%)	George Weston
Education and Health Services	10 (3%)	WellChoice	0 (0%)	-
Restaurants, Accommodation, and Recreation	7 (2%)	Starwood Hotels	12 (4%)	Cinram International
Other Services	0 (0%)	-	0 (0%)	-
Regional Total	**303 (100%)**	**General Electric**	**307 (100%)**	**General Motors Canada**

* Subsidiary of a foreign parent firm

Source: Dun & Bradstreet, Corporate Affiliations, Financial Post

Research Questions

This study uses the conceptual framework, historical background, and databases described above to investigate the evolving relationship between New York, Toronto, and their respective national economies.[3] This research compares the two cities and nations, providing insight into the changes impacting the economies and corporate communities under study. Below I outline the key research questions addressed in this investigation.

The first research question, the *strategic dominance premise*, investigates the relationship between each study city and its connected national economy. This premise studies the extent to which each city dominates three sectors of particular importance in the modern global economy: *finance, insurance, and real estate* (FIRE), *business services*, and *communication*. The ability to finance large-scale projects, to support corporate activities through high-level analysis and advice, and to shape, control, and use modern communication technology, is fundamental to the ongoing operations of the modern corporation.

The second research question broadens the inquiry to address the relationship between the two study cities and their national economies. Following Rice's (1996) finding of Toronto's concentrated headquarters growth in expanding sectors of the Canadian economy from 1970-1990, the *sectoral growth premise* examines the extent to which this same phenomenon continued in Toronto over the later 1996-2004 period covered by the present study. Has Toronto continued attracting and maintaining Establishment headquarters in sectors that are growing, or are large-company headquarters in these sectors now oriented to alternate locations elsewhere? The investigation also extends this same analysis to New York – to what extent does New York host Establishment firms in expanding sectors of the US national economy? For both New York and Toronto, confirmation of their drawing power in growing sectors would provide strong evidence for a continuation of their nationally-dominant status.

The final research question examined here addresses the status of New York and Toronto as incubators of rapidly-growing firms. The *Next Wave premise* compares the Next Wave hosting abilities of the two pre-eminent cities through investigation of two linked questions. First, do the two cities play a similar role in generating Next Wave firms within their respective national economies? Second, are Next Wave firms in the two cities primarily suburban in orientation, following previous nationally-focused studies of the Next Wave in the two countries (Rice 2004, 2005; Wheeler 1990)? Suburbanization matters for all firms, but this study breaks out the suburban tendencies relating specifically to Next Wave firms because of their connection with economic change and the emergence of new industries. Detailed investigation of the location of Next Wave firms has the promise to provide at least partial insight into possible directions for the future evolution of the economy (Rice 2005). This question lays groundwork for further investigation of the role and importance of the Next Wave within the US and Canadian economies.

[3] For simplicity, from here onward in this article and unless otherwise specified, "New York" and "Toronto" refer to the two entire metropolitan regions (and not only the urban cores defined by the actual cities of New York and Toronto).

Methodology

The primary quantitative technique of note used to investigate the questions defined above is the calculation of *location quotients* for New York and Toronto. The location quotient compares the activity taking place in a given local region and the corresponding activity occurring at the national level. For any given place and economic sector, a location quotient greater than 100 indicates that the place hosts more activity in the sector relative to what occurs at the national level, while a location quotient less than 100 indicates that the place hosts less activity in the sector than occurs at the national level (Frederiksen and Langer 2004). Ono (2006) provides a good example of the application of location quotients in the study of corporate headquarters specifically.

Results

Beginning with investigation of the strategic dominance premise, Tables 4 and 5 summarize the key figures for the communication, FIRE, and business service sectors in New York and Toronto. Table 4 demonstrates New York's strength in the three sectors, with all three location quotients being well in excess of 150. Given the country's large and diverse urban-quaternary system, including many strong competitor regions, the concentration of between 30% and 40% of each of these strategic sectors in New York represents a substantial show of strength. Table 5 provides a parallel representation of Toronto's presence in the three strategic sectors. While Toronto does indeed dominate the business services and FIRE sectors as anticipated (business services being particularly strong, accounting for over 90% of revenues in the sector in Canada), the communication sector falls substantially below national average (location quotient of 73.7).

Table 4: Strategic Sector Comparison, US National Economy versus the New York Metropolitan Region

Sector	Total National Revenues, 2004*	Sector as a Percent of National Total	Total New York Region Revenues, 2004*	Sector as Percent of NY Total	NY Region Location Quotient	NY Sector as Percent of National Sector
Commun.	$678,829,310,572	5.5	$270,783,483,000	11.7	211.6	39.9
FIRE	$1,741,408,969,543	14.1	$678,254,879,000	29.2	206.6	38.9
Bus. Serv.	$806,126,724,000	6.5	$261,406,449,000	11.3	172.0	32.4

* Based on analysis of the top 2,200 firms in the United States by revenue

Source: Dun & Bradstreet, Corporate Affiliations

Table 5: Strategic Sector Comparison, Canadian National Economy versus the Greater Toronto Area (GTA)

Sector	Total National Revenues, 2004*	Sector as Percent of National Total	Total GTA Revenues, 2004*	Sector as Percent of GTA Total	GTA Location Quotient	GTA Sector as Percent of National Sector
Commun.	$74,409,673,000	5.4	$23,564,922,000	4.0	73.7	31.7
FIRE	$251,059,180,000	19.1	$145,991,337,000	24.6	135.4	58.2
Bus. Serv.	$6,569,543,000	0.5	$5,918,392,000	1.0	209.8	90.1

* Based on analysis of the top 800 firms in Canada by revenue

Source: Financial Post

Analysis of the sectoral growth premise begins with Tables 6 and 7, which provide two distinct contributions. First, the tables depict the changing composition of the national economies of the United States and Canada over the 1996-2004 study period, based on analysis of the Establishment databases. The tables show that the economies of the two countries differ substantially. For example, the FIRE sector leads in relative growth among all sectors in the US, while in Canada FIRE ranks 15th of 16 sectors (actually posting a decline in share of the economy).[4] The tables also highlight some parallels between the two economies, however. For example, retail ranks as a strong growth sector in both (4th ranking in both the US and Canada).

A second contribution of Tables 6 and 7 is a comparison of the composition of the corporate communities of New York and Toronto with the sectoral ranking of growth and decline. Table 6 shows that the top two sectors for US national growth, FIRE and business services, are sectors of particular emphasis among New York's headquarters. However, all other sectors experiencing growth nationally, such as plastic, glass, and miscellaneous manufacturing, retail, and education and health, are only weakly represented in New York. New York's remaining areas of corporate strength, including communication firms, all fall within the declining portion of the economy.

Table 7 represents a similar situation for Toronto. In contrast with Rice's (1996) observations for 1970-1990, Table 7 shows that Toronto's headquarters community features some Canadian sectors that expanded from 1996 to 2004 (retail, and high technology and chemical manufacturing), some close-to-neutral-growth sectors (business services, machinery and metal manufacturing), and some strongly declining sectors (FIRE, diversified/holding companies). The growth orientation of Toronto's corporations appears to have shifted in the 1990s.

[4] The relative decline of FIRE in Canada is due to the rapid expansion of other sectors in the country, most prominently energy and resources, and is not a sign of an actual decline in Canadian FIRE revenues. Such a relative decline in FIRE in Canada, banking specifically, has been foreseen as an impact of greater international financial competition (Semple and Rice 1994).

Table 6: The New York Region Headquarters Community Compared with the Changing Composition of the United States Economy, 1996-2004

Description	Size, 1996 (% of Revenue Total)*	Size, 2004 (% of Revenue Total)*	National Sectoral Change 1996-2004 (%)**	NY Region Location Quotient, 2004	NY Region as a Percent of the National Total for Sector, 2004
Finance, Insurance, Real Estate	**9.6**	**14.1**	**+4.5**	**206.6**	**38.9**
Business Services	**2.9**	**6.5**	**+3.7**	**172.0**	**32.4**
Plastic, Glass, and Misc. Manufacturing	4.6	6.3	+1.7	29.2	5.5
Retail	12.1	13.3	+1.2	43.2	8.1
Education and Health	2.1	2.4	+0.3	43.6	8.2
Other Services	0.1	0.2	+0.2	0.0	0.0
Restaurants, Accommodation, and Recreation	1.5	1.7	+0.1	52.7	9.9
Transportation, Trades, and Utilities	8.3	8.4	+0.1	33.8	6.4
Diversified/Holding Companies	**9.3**	**9.1**	**-0.2**	**123.4**	**23.3**
Communication	**5.8**	**5.5**	**-0.3**	**211.6**	**39.9**
Wholesale	7.2	6.4	-0.9	65.9	12.4
Food, Textile, and Related Manufacturing	**5.3**	**4.2**	**-1.1**	**132.5**	**25.0**
Energy & Resources	2.7	1.6	-1.1	38.7	7.3
Forestry Product and Related Manufacturing	**2.7**	**1.4**	**-1.3**	**125.8**	**23.7**
Machinery and Metal Manufacturing	5.6	2.9	-2.7	58.9	11.1
High Tech & Chemical Manufacturing	20.1	15.9	-4.2	65.5	12.3

Sectors in bold are sectors with location quotients exceeding 100

* Based on analysis of the top 2,200 firms in the United States by revenue

** Size percentage for 2004, minus the size percentage for 1996

Source: Dun & Bradstreet, Corporate Affiliations

Table 7: The Greater Toronto Area Headquarters Community Compared with the Changing Composition of the Canadian Economy, 1996-2004

Sector	Size, 1996 (% of Revenue Total)*	Size, 2004 (% of Revenue Total)*	National Sectoral Change 1996-2004 (%)**	GTA Location Quotient, 2004	GTA as a Percent of the National Total for Sector, 2004
Energy & Resources	11.2	15.1	+3.9	51.8	22.2
Transportation, Trades, and Utilities	5.9	9.1	+3.1	38.6	16.6
High Tech & Chemical Manufacturing	**16.6**	**19.2**	**+2.6**	**157.5**	**67.6**
Retail	**7.0**	**9.6**	**+2.6**	**104.8**	**45.0**
Restaurants, Accommodation, and Recreation	0.9	1.9	+1.0	91.2	39.2
Business Services	**0.2**	**0.5**	**+0.3**	**209.8**	**90.1**
Plastic, Glass, and Misc. Manufacturing	0.2	0.3	+0.1	26.9	11.5
Education and Health Services	0.0	0.0	0.0	n/a	n/a
Other Services	0.0	0.0	0.0	n/a	n/a
Machinery and Metal Manufacturing	**3.5**	**2.9**	**-0.5**	**103.1**	**44.3**
Food, Textile, and Related Manufacturing	**4.0**	**3.4**	**-0.6**	**103.3**	**44.3**
Forestry Product and Related Manufacturing	4.2	3.3	-0.9	35.4	15.2
Wholesale	6.4	4.7	-1.7	30.7	13.2
Communication	7.9	5.4	-2.6	73.7	31.7
Finance, Insurance, Real Estate	**21.9**	**19.1**	**-2.8**	**135.4**	**58.2**
Diversified/Holding Companies	**10.0**	**5.4**	**-4.6**	**120.8**	**51.9**

Sectors in bold are sectors with location quotients exceeding 100
* Based on analysis of the top 800 firms in Canada by revenue
** Size percentage for 2004, minus the size percentage for 1996

Source: Financial Post

Table 8 provides a direct comparison between the sectors of emphasis for the headquarters communities of New York and Toronto. The table shows a number of areas of correspondence, as the two cities both possess strengths in FIRE, business services, and diversified/holding companies. The analysis also highlights a few areas of difference between the two cities, such as the headquarters strength of *high technology and chemical manufacturing* in Toronto, and the corresponding headquarters weakness of the sector in New York.

Table 8: Canada-US and Toronto-New York Key Comparisons, 1996-2004

Sector	**Canada Sectoral Change 1996-2004 (%)**	**US Sectoral Change 1996-2004 (%)**	**GTA Location Quotient, 2004**	**NY Region Location Quotient, 2004**
Energy & Resources	3.9	-1.1	51.8	38.7
Transportation, Trades, and Utilities	3.1	0.1	38.6	33.8
Food, Textile, and Related Manufacturing	-0.6	-1.1	**103.3**	**132.5**
Forestry Product and Related Manufacturing	-0.9	-1.3	35.4	**125.8**
Machinery and Metal Manufacturing	-0.5	-2.7	**103.1**	58.9
Plastic, Glass, and Misc. Manufacturing	0.1	1.7	26.9	29.2
High Tech & Chemical Manufacturing	3.1	-4.2	**157.5**	65.5
Wholesale	-1.7	-0.9	30.7	65.9
Retail	3.1	1.2	**104.8**	43.2
Communication	-2.6	-0.3	73.7	**211.6**
Finance, Insurance, Real Estate	-2.8	4.5	**135.4**	**206.6**
Business Services	0.3	3.7	**209.8**	**172.0**
Diversified/Holding Companies	-4.6	-0.2	**120.8**	**123.4**
Education and Health Services	0.0	0.3	n/a	43.6
Restaurants, Accommodation, and Recreation	1.0	0.1	91.2	52.7
Other Services	0.0	0.2	n/a	0.0

Location quotient figures in bold exceed 100

Source: Dun & Bradstreet, Corporate Affiliations, Financial Post

Table 9 addresses the final, Next Wave premise. The table depicts two areas of sharp contrast between New York and Toronto. First, the Next Wave firm urban/suburban productivity relationship is inverted between the two, as the most productive Next Wave host in the New York region is the suburban ring, while it is the central city that accounts for the majority of Next Wave firms in Toronto. Second, the two cities are different in terms of their Next Wave relationship with their respective national economies. New York is less significant within the US Next Wave than Toronto is within the Canadian equivalent. Table 10 places New York's Next Wave community in a national context, showing that New York ranks second among all US metropolitan areas to Washington, DC.

Table 9: New York-Toronto Next Wave Comparisons, 2004

	NY Region (# Firms)	NY Region (% of City Total)	US Next Wave (% of National Total)	GTA (# Firms)	GTA (% of City Total)	Canadian Next Wave (% of National Total)
Central City*	9	30.0	1.8	31	58.5	19.9
Suburban Ring**	21	70.0	4.2	22	41.5	14.1
Total	**30**	**100.0**	**6.0**	**53**	**100.0**	**34.0**

* The cities of New York and Toronto

** Locations inside the respective metropolitan areas, but outside the cities of New York and Toronto

Source: Author's tabulation of data from Inc Magazine (US) and Profit Magazine (Canada)

Table 10: US Next Wave by Metropolitan Region, 2004

Rank, 2004	Metropolitan Region	Next Wave Firms, 2004
1	Washington, DC	36
2	**New York, NY**	**30**
3 (tie)	San Francisco-Oakland-San Jose, CA	22
3 (tie)	Boston, MA	22
5	Atlanta, GA	16
6	Dallas-Fort Worth TX	13
7	Salt Lake City, UT	9
8 (tie)	Portland, OR	7
8 (tie)	Baltimore, MD	7
10 (tie)	Louisville, KY	6
10 (tie)	Houston, TX	6

Source: Author's tabulation of data from Inc Magazine

DISCUSSION AND CONCLUSION

This study has analyzed the headquarters communities of New York and Toronto within the context of the evolving national economies of the United States and Canada. Investigation of the *strategic dominance premise* showed that the key sectors of finance, insurance, and real estate (FIRE) and business services remain strongly concentrated in both New York and Toronto. A third sector, communication, has a strong presence in New York, but not Toronto. These findings indicate that, despite any forces that may be acting to decentralize headquarters and corporate power in the two countries, both cities continue to play crucial roles within their respective national economies. Although New York is over a half-century removed from its peak, it continues to maintain a complex of headquarters in elite sectors, giving it an even greater influence over the US economy than might otherwise be gathered from an overall analysis of headquarters location and relocation in America. New York continues to be the key corporate player in the US.

Likewise, Toronto's strategic position is strong. The one weakness of Toronto, in the communication sector, is deep-rooted, as Montreal and other cities have always kept substantial influence in this sector, even as Toronto rose in prominence in many others. Continued observation over the coming years of strong communication headquarters cities like Vancouver (Telus – telecom.), Winnipeg (CanWest/Global – diversified media), and Montreal (BCE – telecommunications and media) will tell if regional strength in communication provides the basis for an eventual weakening of Toronto's national dominance in other sectors. However, for the present, Toronto's position appears to be robust based on its powerful presence in the other two strategic sectors investigated here.

Research of the second, *sectoral growth premise* demonstrated the recent evolution of the economies of the United States and Canada by ranking the study sectors according to their relative growth and decline from 1996 to 2004. The results indicate that a crucial change may have occurred in the 1990s, as Toronto appears to be no longer dominant in attracting the headquarters of Establishment businesses in expanding economic sectors. In part, this change relates to an evolution of the Canadian economy, as sectors that were based outside of Toronto and not growing as rapidly in past decades, including energy and resources, have risen in prominence. More research is needed on this regional factor in the development of the Canadian headquarters city system, not addressed in the present dominant-center study. However, balancing this observation, it should also be noted that past research showed that from 1970-1990 Toronto was able to gain headquarters in the growing sectors of the time, while allowing other cities to dominate among headquarters from declining sectors (Rice 1996). This is not the case today. The fact that Imperial Oil, a dominant firm in the most rapidly-growing Canadian sector, has chosen to relocate out of Toronto may be an important signal of change for the direction of Toronto's headquarters momentum.

New York, in many ways, possesses a headquarters profile similar to Toronto's. The study results show that New York's headquarters are associated with both fast-growing sectors and declining sectors within the US economy. Indeed, as indicated in the strategic dominance investigation, New York and Toronto share some sectoral strengths (FIRE, business services). Table 7 also shows that the two cities share some relative weaknesses, such as in wholesaling. This close comparison, despite differences in national sectoral growth profiles, indicate that both New York and Toronto may be expected to shed headquarters in certain sectors while maintaining headquarters in the most strategic of sectors within the two national economies.

A final investigation, into the *Next Wave premise*, showed two areas of contrasting headquarters activity between New York and Toronto. First, the results indicated that Next Wave firms are oriented to different geographic spaces in the two cities. The suburban ring accounts for the majority of these firms in New York, while it is the central city that hosts most Next Wave firms in Toronto. Second, the results show that

New York is an important player within the US Next Wave, but by no means dominant, as the metropolitan area ranks second nationally to Washington, DC in total number of Next Wave firms. By contrast, Toronto leads as host location for Next Wave firms in Canada. Toronto dominates in its leadership, as it hosts 34.0% of all Next Wave firms in the country, versus 19.2% of firms in the second-ranked Vancouver region. Such results suggest that Toronto plays a much more central role to the functioning of the Canadian economy, especially relating to its renewal through generation of new businesses and industries, in comparison with New York and the US economy.

A number of areas for further research follow from these findings. First, the findings demonstrating concentration of certain sectors in the two nationally-dominant cities, and contrasting findings for other sectors with high levels of dispersion, highlight the need for more sector-specific research to investigate the locational factors that influence the geographic distribution of corporate headquarters. Such work is especially important for a sector like communication that appears to be so central to the economy of New York, but is decentralized within the Canadian economy. Second, following the research presented here, more attention needs to be paid to the geography of headquarters within the complex New York and Toronto regions. As the present work has found that the two cities have contrasting locational tendencies within the Next Wave group of companies, what might be found by further intra-regional study of companies by broad Establishment and Next Wave category, as well as by a more detailed investigation by sector? Lastly, these results suggest that further international analysis of the location of headquarters activity may be of value in providing insight into evolving corporate centers within each country. Indeed, in the present era of glocalization, analysis of both global and local scales is needed to more completely comprehend the forces that shape complexes of elite corporate activities.

ACKNOWLEDGEMENTS

I acknowledge start-up funding provided by the University of North Texas, College of Arts and Sciences, that allowed me to acquire some of the corporate datasets used in this analysis. As well, I am grateful for helpful comments provided by Don Lyons and three anonymous reviewers on earlier versions of this work. Any remaining shortcomings are my responsibility alone.

REFERENCES

Beaverstock, J.V., R.G. Smith, and P.J. Taylor. 2000 World-city network: a new metageography? *Annals of the Association of American Geographers* 90: 123-134.

Frederiksen, P. and V. Langer. 2004 Localisation and concentration of organic farming in the 1990s – the Danish case. *Tijdschrift voor Economische en Sociale Geografie* 95: 539-549.

Graff, T.O. 2006 Unequal competition among chains of supercenters: Kmart, Target, and Wal-Mart. *The Professional Geographer* 58: 54-64.

Holloway, S.R., and J.O. Wheeler. 1991 Corporate headquarters relocation and changes in metropolitan dominance, 1980-1987. *Economic Geography* 67: 54-74.

Kirby, J., and C. Cattaneo. 2004 Imperial Oil moving HQ to Calgary. *National Post* September 29: A4.

Klier, T., and W. Testa. 2002 Location trends of large company headquarters during the 1990s. *Economic Perspectives of the Federal Reserve Bank of Chicago* Second Quarter: 12-26.

Knox, P.L., and L. McCarthy. 2005 *Urbanization: An Introduction to Urban Geography*. Upper Saddle River, NJ: Pearson Prentice Hall.

Leon, H. 2003 Big apple's rebuilding. *Mortgage Banking* 63(4), January: 60-64.

Lipset, S.M. 1990 *Continental Divide: The Values and Institutions of the United States and Canada*. New York: Routledge.

Lyons, D.I. 1995 Changing business opportunities: the geography of rapidly growing small U.S. private firms, 1982-1992. *Professional Geographer* 47: 388-398.

Martz, D.J.F., and R.K. Semple. 1985 Hierarchical corporate decision-making structure with the Canadian urban system: the case of banking. *Urban Geography* 6: 316-300.

Meyer, S.P., and M.B. Green. 2003 Headquarters in Canada: an analysis of spatial patterns. *Urban Geography* 24: 232-252.

O'Hagan, S.B., and M.B. Green. 2004 Corporate knowledge transfer via interlocking directorates: a network analysis approach. *Geoforum* 35: 127-139.

Ono, Y. 2006 What do census data tell us about headquarters location? *Economic Development Quarterly* 20: 129-141.

Poon, J.H., and E.R. Thompson. 2003 Developmental and quiescent subsidiaries in the Asia Pacific: evidence from Hong Kong, Singapore, Shanghai, and Sydney. *Economic Geography* 79: 195-214.

Quante, W. 1976 *The Exodus of Corporate Headquarters from New York City*. New York: Praeger.

Rice, M.D. 1996 Functional dynamics and a peripheral quaternary place: the case of Calgary. *Canadian Journal of Regional Science* 19: 65-82.

_____ 2004 Regional and sectoral growth in Canada's emerging economy. *Canadian Journal of Regional Science* 27: 237-254.

_____ 2005 Evolving business centres in Canada: the Establishment versus the Next Wave. *The Great Lakes Geographer* 12: 1-18.

_____ and Lavoie, D.C. 2005 Crown corporations and co-operatives as coping mechanisms in regional economic development. *The Canadian Geographer* 49: 367-383.

Schultz, E., and W. Simmons. 1959 *Office in the Sky*. New York: Bobbs-Merrill.

Schwartz, A. 1992 The geography of corporate services: a case study of the New York urban region. *Urban Geography* 13: 1-24.

Semple, R.K. 1985 Toward a quaternary place theory. *Urban Geography* 6: 285-296.

_____ 1996 Quaternary Places in Canada. In *Canada and the Global Economy: The Geography of Structural and Technological Change*, edited by J.N.H. Britton, pp. 352-373. Montreal and Kingston: McGill-Queen's University Press.

_____ and Phipps, A.G. 1982 The spatial evolution of corporate headquarters within an urban system. *Urban Geography* 3: 258-279.

_____ and Rice, M.D. 1994 Canada and the international system of bank headquarters cities, 1968-1989. *Growth and Change* 25: 25-50.

Swyngedouw, E. 2004 Globalisation or "glocalisation"? Networks, territories, and rescaling. *Cambridge Review of International Affairs* 17: 25-48.

_____ 1997 Neither global nor local: 'glocalization' and the politics of scale. In *Spaces of Globalization: Reasserting the Power of the Local*, edited by K.R. Cox, pp. 137-166. New York: Guilford.

Taggart, J.H. 1998 Strategy shifts in MNC subsidiaries. *Strategic Management Journal* 19: 663-681.

von Thünen, J.H. 1826 *Der Isolierte Staat in Beziehung auf Landtschaft und Nationaloekonomie.* Hamburg. English translation: Wartenberg C.M. 1966. *von Thünen's Isolated State.* Pergamon Press, Oxford.

Weber A. 1909 *Uber den Standort der Industrien*. Tübingen: J.C.B. Mohr. English translation: C.J. Friedrich. 1929. *The Theory of the Location of Industries.* Chicago: The University of Chicago Press.

Wheeler, J.O. 1990 The new corporate landscape: America's fastest growing private companies. *The Professional Geographer* 42: 433-444.