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The New Geography of Office Location and the Consequences of Business as Usual in the GTA

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Contents

List of Figures

List of Tables

Executive Summary

One-third of all the jobs in the Greater Toronto Area (GTA) are office jobs, and growth in office employment is essential for the regional economy. Competitiveness in the office sector has three main components:

- a choice of locations that are cost-effective, accessible, and appropriate for the particular type of business and the needs of employees;
- a working environment (both within the office itself and in the surrounding area) that will attract and retain workers with the necessary skills;
- the ability to add new floor space in a relatively short period of time to meet growing demand.

The office sector has changed dramatically over the past few decades. Thirty years ago, office employment was heavily concentrated in Toronto's downtown core, which housed a wide range of businesses, from engineering offices to publishing firms to the head offices of manufacturing companies to financial and legal services.

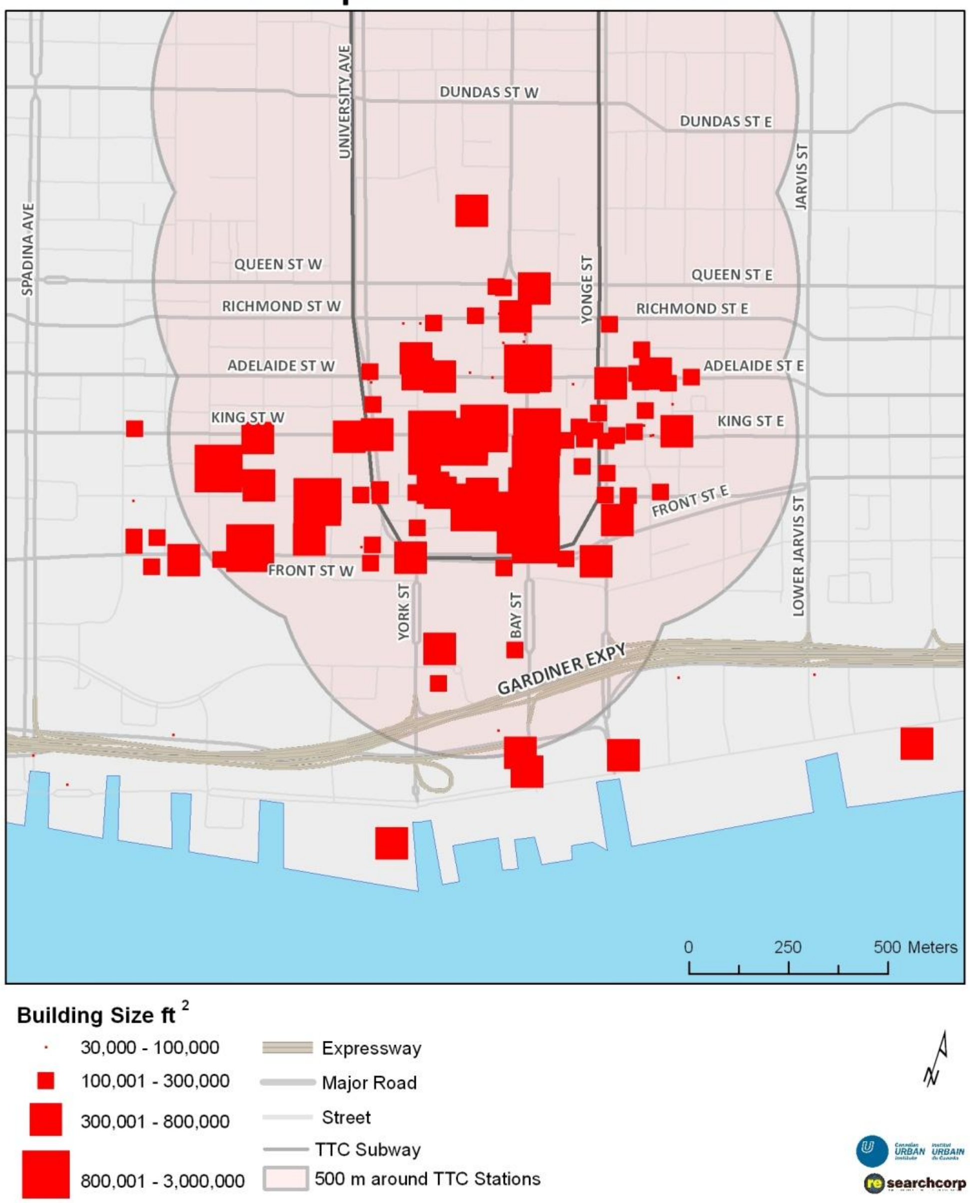
Today, the office landscape is very different. Only about 20% of the region's office capacity is in Toronto's downtown core, and the downtown has a much narrower range of types of business. The head offices, publishing firms, and engineering companies have largely moved out to suburban areas, sometimes elsewhere in the City of Toronto, but mostly in the "905" region. For the most part, what remains are businesses in or affiliated with the financial services sector. The GTA as a whole recently passed the milestone of 200,000,000 sq ft of built office space, making it one of only four such regions in North America. Thirty years ago, 63% of the region's office space was located in the Financial District or directly on subway lines. In 2010, that has changed and the majority of office space (54%) is located beyond the reach of higher-order transit. This may be the most significant change to the geography of the region since the mid-1970s, when some major institutions relocated from Montréal to Toronto.

The emergence of the 905 as a significant factor in the competitiveness of office clusters in the last 30 years has resulted in a new geography, consisting of four submarkets. These submarkets have been shaped by a combination of disruptive differentials in commercial tax rates between 416 and 905; stark differences across the region in terms of land use policy; and decades of under-investment in public transit:

1. The *Financial Core* (22% of the region) has the largest concentration of A-class office space in the country, and one of the most significant in North America. We refer to it as the "financial core" rather than the central business district, because it is mainly the location of financial institutions and the businesses that serve these institutions. This specialization of the core has both benefits and drawbacks. On one hand, Toronto has become an important city in the network of global financial centres, and the sector is relatively strong and continuing to grow. On the other, the lack of diversity in the downtown core makes the area vulnerable to downturns in the sector on which it depends. Further, the financial sector is to some extent the victim of its own

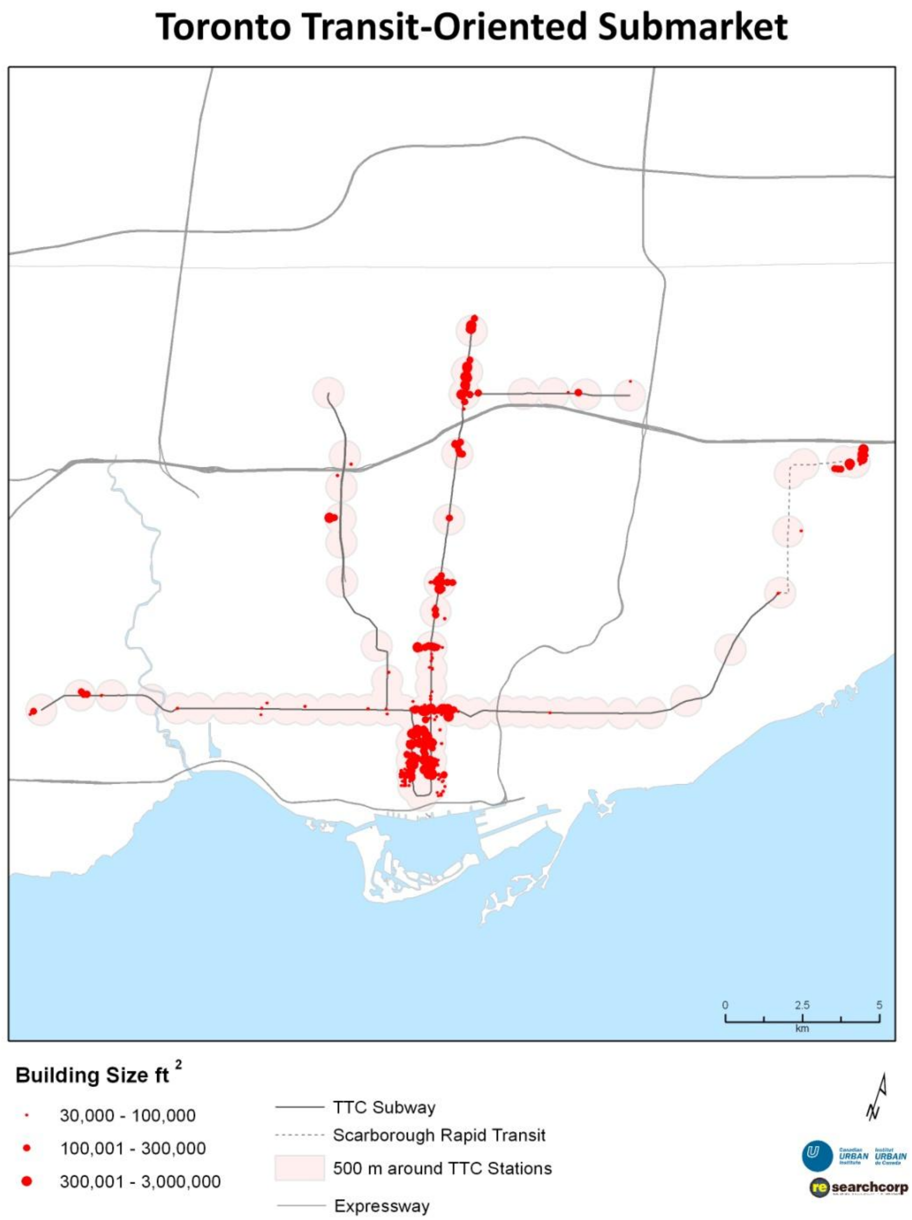
stability and success; it has been largely taken for granted as a driver of growth and prosperity and does not benefit from government support or special programs to help maintain its global status. Although a report prepared for the Toronto Financial Services Alliance by the Boston Consulting Group (2009) stated that the sector ought to add 40,000 new jobs, there is no accompanying strategy to create the office space (approximately 8 million sq ft) needed to accommodate these jobs within the financial district.

Office Space in the Financial Core



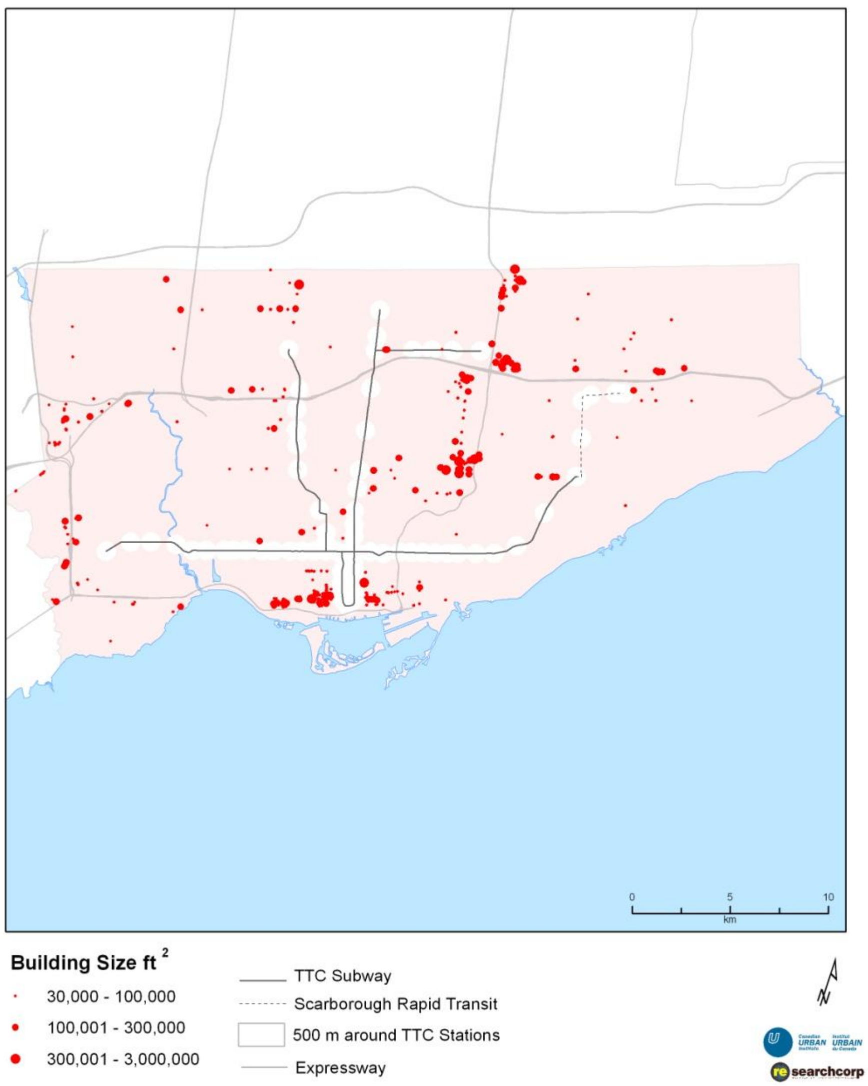
See Appendix 1 for enlargements

2. The *Toronto transit-oriented* submarket (24% of the region) has many of the same attributes as the financial core in terms of access to higher-order transit, dining, culture, educational and recreational amenities, but in a secondary location. This market includes a range of office buildings with easy access to rapid transit, located along the Yonge Street subway as far as North York and adjacent to the University Avenue subway as far as Bloor Street, as well as a small part of the “Brick and Beam” buildings located east and west of the Financial District and newer sites south of Union Station. Many areas of this sub-market - most notably midtown - have not seen significant growth in 30 years. Growth has occurred in the Brick and Beam areas, some in North York and some on the Waterfront. Significant attention needs to be paid to creating the conditions under which this submarket is able to expand.

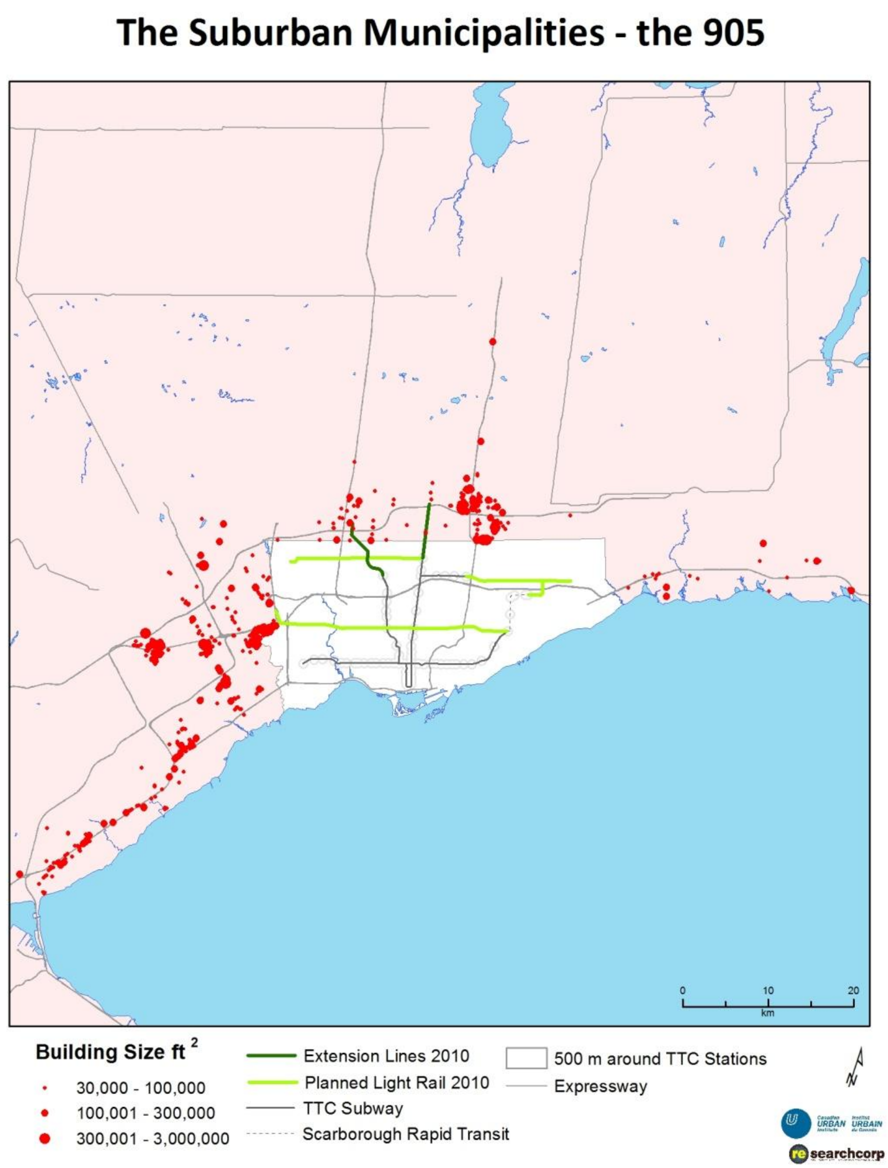


3. The *Toronto non-transit* submarket (21% of the region) evolved in the 1970s and 1980s and has remained effectively unchanged since then. Areas like Don Mills, Scarborough and Etobicoke grew rapidly in advance of the conversion of industrial parks on the 400-series highways. With the exception of the Brick and Beam districts, which came online in the 1990s as a result of radical changes in planning policy, this 45-million ft^2 submarket has effectively been stalled for more than 20 years. Few tenants looking to relocate consider these areas as viable options, particularly in sufficient numbers to justify new construction. Many office buildings in these areas have since been converted to residential use. Highway and arterial road congestion, the absence of higher-order transit, tax rates twice as high as suburban markets and the continued spread of the labour force beyond the City of Toronto have all contributed to the lack of competitiveness in this area.

Toronto "Non-Transit" Submarket



4. The *suburban municipalities*, often referred to as "the 905," (33% of the region) have enjoyed the greatest amount of growth in the region over the past 20 years. This submarket is characterized by concentrations of office space located in industrial/office parks, such as Meadowvale, Airport Corporate Centre, the Burlington-Oakville corridor, and the 407/404 cluster. Taken as a whole, the clusters of office space in these highway-dependent locations now collectively exceed the size of the Financial Core. These clusters enjoy few of the value-added amenities of the Financial Core, and to a lesser extent the *Toronto transit-oriented*, and *Toronto non-transit*, submarkets. The location of 66-million ft² of office space in this submarket (more than Calgary and Edmonton combined), accommodating in excess of 325,000 office workers, is the single largest contributor to congestion on GTA highways.



Over time, the momentum of growth has shifted to the 905, as developers and tenants responded to the tax differential between Toronto and surrounding suburbs, and the ease of creating office developments in a timely manner by selecting locations that best meet their diverse needs. This transition has occurred because of land use and tax policies that have made it harder and more expensive to add new flexible office space in the core. At the same time, in a trend that has accelerated over the past decade, the number of sites suitable and available for office development in the core has shrunk dramatically, in contrast to the 905 where approval timeframes are quicker, and where sites are available in abundance and less constrained in terms of construction challenges.

The land use policies of documents such as *Places to Grow* are unlikely to make much difference to this pattern, as they are intended to focus development in intensification areas that do not coincide with current clusters of office space. Furthermore, property tax policies continue to incent the development of commercial space outside the City of Toronto.

Businesses of all kinds need space in which to grow. In the current policy environment, and despite the recent creation of some new office buildings in downtown Toronto after years of inactivity, most businesses see that opportunity in the GTA's suburbs, not in the City of Toronto.

Policies are needed that will attract both established and start-up businesses to locate in areas close to transit and urban amenities. This happened in the 1990s when the City of Toronto opened up the "Kings" (King-Spadina and King-Parliament areas) to development, which resulted in the rehabilitation of heritage buildings and the conversion of former industrial buildings to accommodate the creation of millions of square feet of new office space. Similar initiatives in other areas could support sustainable growth in office space and office employment, without contributing further to road congestion.

Notwithstanding the recent construction of new office towers in downtown Toronto, the momentum of job growth in the region is into locations that are almost completely dependent on the automobile. The resulting impact of traffic congestion on longer commuting times and lost productivity seriously affects the quality of working life for a large number of GTA residents.

The long-term impacts of business-as-usual trends need to be acknowledged as a competitive threat. Close to 108 million ft^2 of office space is located beyond the reach of higher-order transit at present, and following the implementation of current transit plans, approximately 98 million ft^2 will still be beyond the reach of higher-order transit[1]. This problem must be addressed to protect the long-term competitiveness of the region.

The economic fortunes of a region's core and the rest of the region are inextricably intertwined. A strong core will stimulate the region, just as success in the suburbs can benefit the core. Accordingly, this study sets out a rationale for addressing the strengths and weaknesses in the four distinct submarkets in GTA in ways that help improve their interconnectedness - and, by extension, the competitiveness of the Greater Toronto Area employment market as a whole.

[1] The precise amount depends on assumptions regarding walking distance from higher order transit.

Summary of Recommendations

The study makes the following recommendations aimed at facilitating a more competitive environment for GTA office employment across all four submarkets defined in the report, and the development sector that supports it.

General Recommendations Related to The Region's Competitiveness

1. The gap between high commercial realty taxes and low residential tax rates in the City of Toronto must be narrowed. The City recognized this in 2005 and has begun the process. This process should be accelerated.
2. Tax and land use policy must recognize that office jobs are the *only* form of high density employment, representing more than one third of all jobs (estimated at 1 million jobs) in the region. Steps need to be taken to modify public policy to create a competitive environment for office development in all four sub-markets identified in this report.
3. The Growth Plan should be amended to recognize that significant concentrations of office space exist outside of the designated Growth Centres, and need to be integrated into the strategy for creating Growth Centres.
4. The province should work with local municipalities in the GTA to adjust priorities and fine tune the planned roll-out of rapid transit projects to better connect to approximately 108 million square feet of office space that is currently dependent on automobile access[2].
5. The province should create the legislation necessary to require binding commitments for transit-supportive development along transportation corridors in advance of transit construction.

Protecting and Enhancing the Primacy of Toronto's Financial Core

6. The City of Toronto, supported by the Province of Ontario, should explicitly acknowledge the primacy and key role played by the Financial Core beyond statements in the Official Plan and take the steps to identify and designate, through new zoning and other planning initiatives, office building development sites to ensure an adequate long-term supply of high quality, transit-oriented sites for future development.
7. The City of Toronto and the province should work to accelerate the progress towards balancing the commercial tax burden and making commercial property taxes more competitive in Toronto's commercial sector.
8. The City of Toronto is at present heavily dependent on a single major employment sector - Financial Services; it is paramount that steps be taken to enhance and foster the continued prosperity of this sector in order to ensure the economic health and future competitiveness of the region.

[2] The precise amount depends on assumptions regarding walking distance from higher order transit.

Reinforcing the Attractiveness of Toronto's Transit-Oriented Submarket

9. The City of Toronto should encourage high-intensity office development along the existing subway system by re-evaluating land use policy within a five-minute walk of subway stations and designating sites appropriate for office employment development.

10. Land use policy and the development approvals process for the creation of office buildings must acknowledge that the maximum time for employers to make a commitment to new facilities through to occupancy is three years.

Re-evaluating Development Priorities in Toronto's Non-Transit Submarket

11. Relying on the successful precedent in "the Kings" (otherwise known as the "Brick and Beam" districts either side of the financial core), the City of Toronto should focus on creating better value for existing and new investors by planning for a variety of new, high-intensity, multi-function uses in the Toronto non-transit submarket compatible with existing office buildings which take advantage of existing or proposed infrastructure investments.

12. As part of the upcoming Official Plan Review, the City of Toronto should consider expanding the range of permitted uses in selected employment areas while increasing opportunities for office development in others.

13. The City of Toronto should recognize that prime development land currently being absorbed by residential condominium builders must be balanced by a similar designation for office building intensification in corridors where future higher-order transit is planned.

Consolidating the Strengths and Reinforcing the Long-Term Viability of Suburban Car-dependent Office Clusters

14. Working collaboratively with affected municipalities, the Province of Ontario should amend its Provincial Policy Statement (currently under review) to preclude the development of additional suburban office sites that do not fall within existing "suburban office nodes."

15. In the spirit of intensification advocated in the provincial Growth Plan, suburban municipalities should work to actively expand the range of uses and functions permitted in suburban office nodes in order to improve their "functionality" and develop an environment more conducive to pedestrian activity and transit use.

1. Business Competitiveness in the GTA, Five Years On

In 2005 the Canadian Urban Institute (CUI) was retained to prepare a report for the Toronto Office Coalition (TOC) examining the competitiveness of the office market in Toronto and the surrounding urban region. *Business Competitiveness in the GTA* examined a wide range of issues affecting the office market. There were four key findings:

- the GTA has the largest inventory of office space in Canada;
- tax inequities between Toronto and suburban municipalities have affected Toronto's ability to attract new tenants relative to the rest of the region;
- Toronto has lost tenancies and jobs to the suburban municipalities and as a result the City's share of new growth has been diminishing;
- new office space built in the suburban municipalities has been developed in auto-dependent locations.

Since that report was published, and despite certain changes in public policies that affect office location, the trends that were apparent in 2005 are still shaping the development of the office sector. The outcome is a distinctive geography of offices in the GTA that has implications not only for the office sector's competitiveness, but also for the long-term competitiveness of the regional economy.

The findings in this report are based on the analysis of data supplied by Real Estate Search Corporation, other available data, and augmented by the results of interviews conducted with office tenants, landlords, and developers.

The purpose of this report is to examine the causes and implications of this geography, and explore what the continuation of business-as-usual policies and trends — including the perpetuation of tax differentials between 416 and 905 — will mean for these areas, for those who run businesses or work in them, and for the region as a whole. The policy recommendations are targeted at addressing the two main effects of current regional policy, sprawl and highway congestion.

2. Changes and trends since 2005

Several important policy decisions have been made by various levels of government since 2005 that affect the market for office development, ranging from provincial initiatives that potentially influence location decisions and access to office clusters, to local actions that affect the costs of doing business in the GTA. At the same time, the economic downturn that began in 2008, growing congestion on the GTA's roads and highways, energy costs and environmental concerns, and changes to the risk profile of the development industry are shaping the geography of office-based employment.

The Difference Between Intensified Office Employment and Other Forms Of Employment

The provincial initiative to establish a growth plan for the Greater Golden Horseshoe addressed the need to concentrate both residential and employment growth. At present, the plan does not differentiate between two distinct types of employment. Jobs located in office buildings are highly intensified. Other types of employment are dispersed. For example, First Canadian Place houses approximately 10,000 jobs on less than one acre of land, while a logistics centre in an industrial park may have less than five jobs per acre.

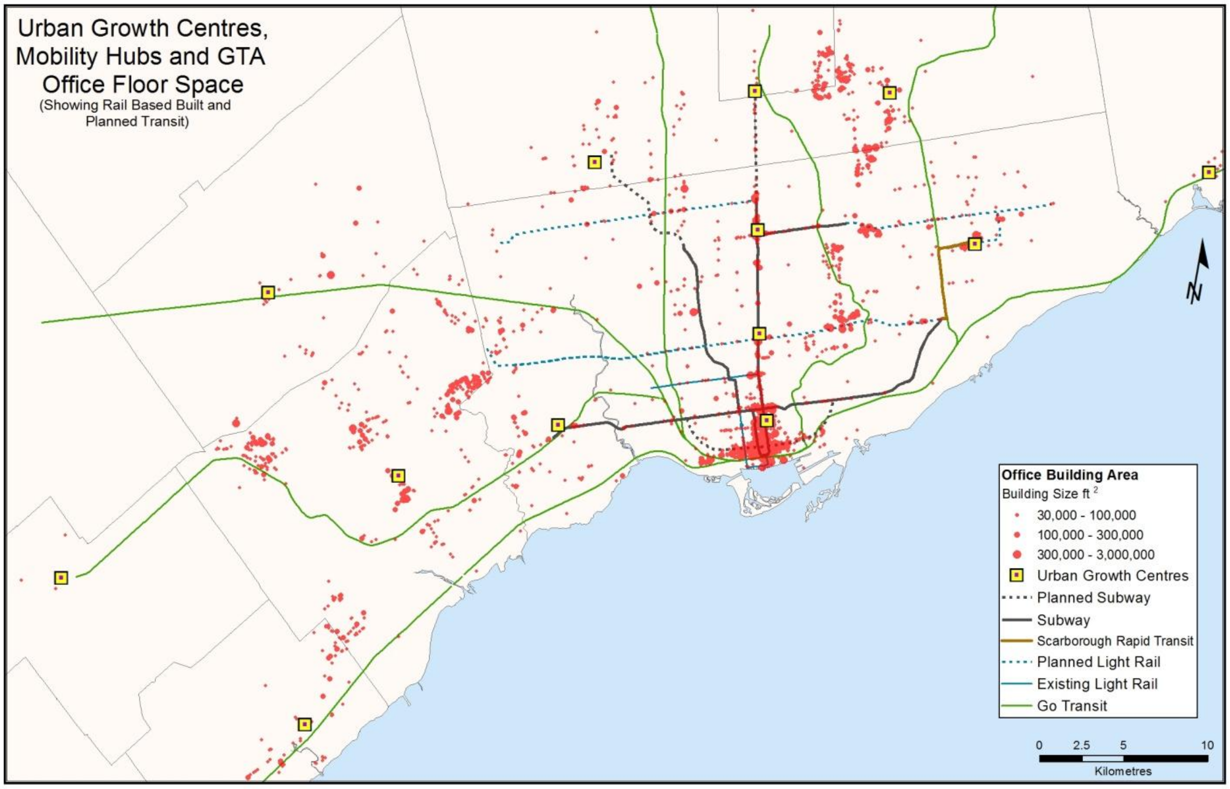
The most significant provincial policy in relation to office location is the adoption of the Growth Plan for the Greater Golden Horseshoe (GGH), which came into effect in June 2006. (The GTA is the core of the larger GGH.) This plan requires municipalities to amend their official plans to be in conformity with the Growth Plan.

The plan directs growth to 25 mixed-use Urban Growth Centres across the GGH. These centres are a combination of existing or emerging downtowns, for which density targets have been set. There are three levels of centres; those in Toronto are required to meet the highest density of residents and jobs per hectare.

The Growth Plan identifies four growth centres in the City of Toronto in addition to downtown. These are Yonge/Eglinton, North York, Etobicoke, and Scarborough. Ironically, these four clusters have seen little or no office employment growth for between 15 and 25 years. The plan identifies a further 10 Urban Growth Centres in the Greater Toronto Area and Hamilton (downtown Hamilton, downtown Burlington, mid-town Oakville, Mississauga City Centre, downtown Brampton, Vaughan Metropolitan Centre, Richmond Hill, downtown Markham, downtown Pickering and downtown Oshawa).

The plan, by mixing together residents and jobs in its targets, does not provide clear guidance for intensifying employment in Urban Growth Centres. It directs "major office" uses (defined as freestanding office buildings of 10,000 m^2 or greater, or with 500 jobs or more) to Urban Growth Centres, but nonetheless provides for 60% of new development in greenfield areas. As shown in Figure 1, the Urban Growth Centres are not a perfect fit with the way the office market has evolved. Clusters of offices in Markham, Don Mills, Etobicoke, and Mississauga are located some distance from the Urban Growth Centres.

Figure 1 - Urban Growth Centres Relative to Office Floor Space in the GTA



Source: maps by CUI, office data provided by Real Estate Search Corporation and information adapted from "Places to Grow."

Aligning the locations of Growth Centres more closely with existing concentrations of high density office employment would improve their chances of success and enhance their effectiveness. As one observer put it, "Existing office clusters outside of the reach of higher order transit house 500,000 jobs. These buildings are not moving, why create or stimulate new growth centres?"

In 2007, the government also established a regional transportation authority to prepare and implement a regional transportation plan in support of the Growth Plan. The organization now known as Metrolinx published the “Big Move” transportation plan in November 2008. In addition to setting out the vision for a significant expansion of the public transit network in the GTA and Hamilton, the plan identifies “mobility hubs” that dovetail with the Growth Plan’s Urban Growth Centres. Mobility hubs are “major station areas…and places of connectivity…[that]…have or are planned to have an attractive, intensive concentration of employment, living, shopping.” The vision is that by 2020, 81% of the population in the GTAH will be living within two kilometers of rapid transit, the problem is that those transit lines do not connect the majority of these individuals to their places of work.

Figure 1 shows the elements of the Big Move plan[3]. This too is not an ideal fit with the GTA’s existing office clusters, and leaves some of the most important clusters unserved, including those in Markham, Don Mills, and Mississauga. We estimate that even after build-out of the planned rapid

[3] As planned in 2010.

transit network expansion, about 98 million ft^2 of office development will still be beyond the reach of higher order transit.[4]

Finally, the provincial government has set in place a process to rebalance the business education tax (BET) across the province in order to bring those municipalities with higher-than-average BET down to the provincial mean. While the education tax makes up only a small amount of total occupancy costs, employers in the City of Toronto and other mature urban centres are paying more per square foot than many newer suburban municipalities. This policy will have the effect of bringing Toronto in line with the provincial average, although the drop from 1.976% of assessed value to 1.6% will still leave Toronto with an education tax rate above that of some surrounding jurisdictions (Vaughan has a tax rate of 1.29%, for example). By 2014 the province projects total tax cuts for the business education tax, as it relates to commercial uses, will total over $200-million (Province of Ontario, 2007).

The education tax rate decrease will not affect existing buildings in Toronto until 2012 (municipalities with the highest rates are being rebalanced first). In the meantime, new buildings receive a temporary competitive advantage as the new rate applies to them immediately.

City of Toronto: Little Progress on the Agenda for Prosperity

One of the most significant municipal interventions since 2005 began with support from the province – a new City of Toronto Act, designed to provide the City with more autonomy and revenue-generating opportunities. Bill 53, the *Stronger City of Toronto for a Stronger Ontario Act*, was passed on January 1, 2007. Perhaps the most controversial outcomes were the introduction of a municipal land transfer tax and a personal vehicle tax (the latter has been cancelled, as one of the first acts of the new administration at City Hall), which raised concerns at the time that the costs of doing business in Toronto will further erode the City's competiveness. Our interviewees, however, did not cite these new taxes among their concerns.

In 2006, the City of Toronto committed to gradually narrowing the gap between commercial tax classes and residential classes. Problems related to the capping of assessments were not, however, addressed by these measures.

One of the issues raised in CUI's 2005 report was a concern about lack of support from the City for the office sector. Two specific initiatives were already under way at this time—gradually reducing the tax burden and addressing the education portion of the tax. These are addressed in more detail elsewhere in this report.

In the months following release of the 2005 report on offices, the Mayor convened a multi-sector task force of business leaders and other leaders to provide advice on the competitiveness of the City.

[4] These figures are conservative – the estimate of office space left unserved by higher order transit depends on assumptions concerning pedestrian walking distances. If measurements were taken from transit access points (stations), rather than measuring a 5-minute walk from the line itself, the estimate would likely be higher. The corridor measurement has been used since access points have not been defined for planned transit lines at the time of writing this report.

Further to the City's Action Plan, in June 2006, the City of Toronto released an economic development strategy titled *Agenda for Prosperity* (City of Toronto, 2008). The following targets and policies were set to reduce and rebalance taxes. As it relates to the office sector, the Agenda sets policy to:

- Promote job creation and expansion of the municipal tax base, including the commercial property tax base.
- Implement an industrial and commercial tenant attraction strategy that would include a new industrial and office base rate, reducing taxes by 20%; and introduce new time-limited incentive packages for environmental improvements and upgrades and brownfield rehabilitation.

In the *Agenda for Prosperity*, the City recognized the need to expand the tax base in order to generate the additional tax revenue needed to rebalance the tax ratios without dramatically affecting residential taxpayers. The City also showed that it is aware of the tax burden placed on commercial office tenants and that this burden is affecting the competitiveness of the sector, as demonstrated by the proposed lower tax rate for new buildings.

At the same time, some in the industry expressed concern about providing breaks to some properties and not others, suggesting it would be detrimental to the market in the long run as it creates temporary false demand, leading to tenants moving around within the city with only limited new floor space being leased. In the end, this suggestion was not followed up.

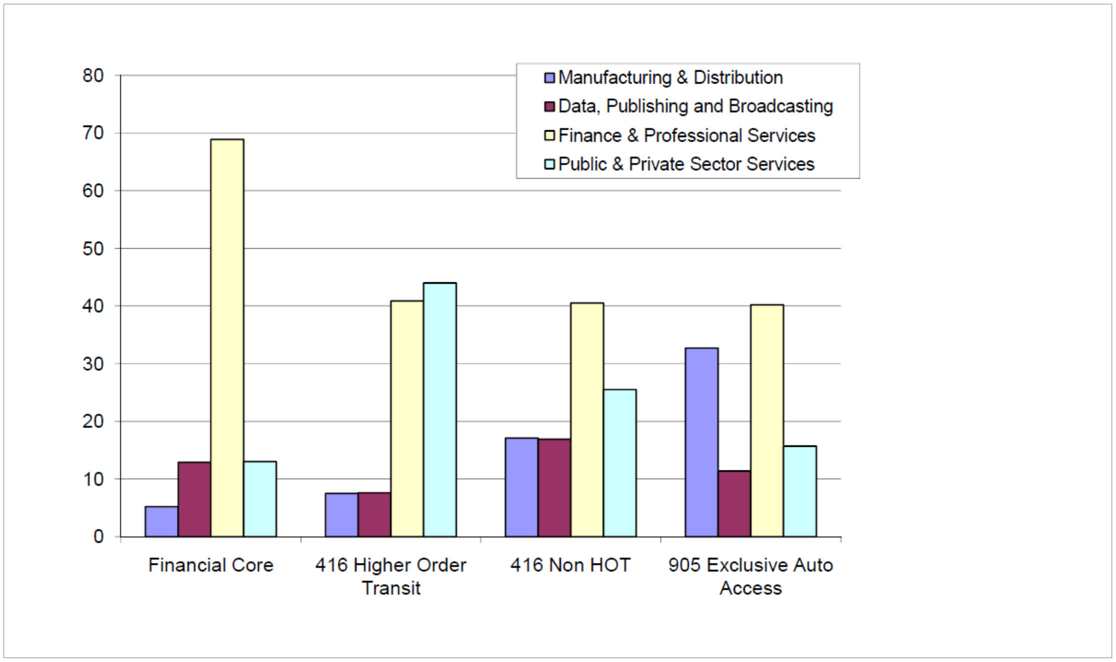
In addition to reiterating a general commitment to reducing the tax burden for the Toronto office sector, one of the key recommendations of the *Agenda for Prosperity* was to develop a tenant-attraction strategy, acknowledging the need to support the market viability of B and C class building stock. No progress has been made on this initiative.

The City has enacted strong policies in its official plan on the importance of supporting the City's downtown – and the Financial District in particular – as the nation's primary concentration of economic, cultural and related activity. With the exception of Union Station investments, which have involved contributions from senior governments, these policy statements do not appear to be connected to or in synch with capital spending plans to explicitly enhance the financial core. As one interviewee put it, "We are relying too heavily on our laurels and past investments." Competitiveness cannot be taken for granted; the City needs to keep promoting its assets and adding to them with investment and support.

The City of Toronto's Dependence on the Financial Services Sector

When the majority of office space in the region was in the Financial Core, prior to 1980, many different businesses such as mining, engineering, publishing, and data services were located there. The rapid growth of the tech sector and medical sciences, and the movement of the mining and resource sector away from the region has resulted in significant changes to the functionality of the Financial Services cluster. Whereas at one time all offices unrelated to Financial Services located anywhere else but the core, today, few do.

Figure 2 - Geographic Distribution of Office Space by Employment Sector



Tax Differentials Still Create Inequities, But Change is Slow and Difficult to Achieve

Real estate taxes form a relatively small but important component of total occupancy costs, but represent the largest single differential in markets. Sophisticated tenants take into account the gross costs of occupancy, which include the costs associated with how employees access their place of work and the need to provide amenities and services where these are lacking. Realty taxes continue to be enough of a cost driver where access to labour markets and amenities are relatively similar, for example, on either side of Steeles Avenue (Toronto vs. Vaughan or Markham) or in Etobicoke relative to neighbouring Mississauga.

The tax inequities between properties in the City of Toronto and properties in the surrounding region, differences in educational tax rates across the region, the tax burden placed on the commercial office sector in Toronto, and the impact of caps and clawbacks on the office market in general have all been the subjects of past studies. A series of recommendations made by CUI (and others) have indicated the importance of re-examining the tax burden placed on different sectors across the region as well as in regard to the respective municipal tax rates in each jurisdiction of the GTA.

In October 2005, the City of Toronto introduced an action plan, *Enhancing Toronto's Business Climate* that was intended to promote the competitiveness of the City's office sector (City of Toronto, 2005). The plan addressed a range of issues and inequities affecting business in the GTA, in particular issues associated with the introduction of market value assessment in the late 1990s.

Through *Enhancing Toronto's Business Climate,* Toronto City Council set out to correct the imbalance in tax ratios (the tool used to adjust the tax burden borne by different tax classes); push for reductions in Toronto's business education tax rate to bring it in line with the surrounding region; and accelerate the phasing out of assessment growth caps.

Despite the stated intention to lower realty taxes in Toronto to make the City more competitive relative to the rest of the region, little has actually changed.

Why not? First, the impact of policy related to the business education tax has not come into effect for Toronto and will not affect most of the surrounding region. Second, providing tax rate incentives for new construction, as outlined in the *Agenda for Prosperity*, will not affect the overall average for the City for some time, considering the amount of floor space constructed since 2005 is very small relative to the total. Third, lowering the commercial tax rate in Toronto would require increasing the tax rates associated with other classes.

Our interviews suggested that many business owners are becoming resigned to the tax problems and the persistent tax differentials between Toronto and the 905 region. One noted, “With respect to the tax gap, it is only part of a much larger equation, and governments are severely constrained [in their ability] to alter the situation. Face it, tax differentials aren’t about to change.” Another said, “Toronto is broke and it will not likely be, any time soon, competitive on the tax front – it’s not a reality.”

Congestion is Currently the Biggest Threat to Competitiveness

The stark differences in commercial property taxes between the City of Toronto and neighbouring jurisdictions remain a concern for office owners, developers, and tenants in Toronto, but, based on interviews conducted for this report, appear to have been superseded as a pressing concern by the urgent need to deal with traffic congestion.

Estimates of the cost of congestion vary and are hard to pin down, but a provincial press release titled "Move Ontario 2020" (2007) put the annual cost at $2.2 billion for the GTA and some estimates are even higher. The actual figure is probably less important than the fact that it is known to be large and is continuing to grow over time. The various figures put forward presumably represent the extra time wasted by workers stuck in traffic and by those moving goods in the region (a particular issue for businesses that depend on just-in-time deliveries). They may not include the hidden costs of additional greenhouse gas emissions or of the stress experienced by those who are delayed on their journeys to home or work. The danger, in terms of the impact of congestion on competitiveness, is that companies rarely signal their intention to relocate or publicly complain about the effects of congestion: they simply "vote with their feet," and leave.

Companies today are starting to consider road congestion in their location decisions. For some, this means choosing a location in the Toronto core with access to both subway and commuter rail, and the amenities of downtown, while others opt for less costly office park locations closer to where their workers live, although one interviewee noted that such locations can sometimes require additional expenditures by the employer to create building-specific amenities.

Despite a certain amount of debate about the way in which wireless communication technologies can “free” workers from fixed-location offices, our research suggests that many companies are using technology as a way to solve the problems created by congestion in a form of Transportation Demand Management, rather than shaping their business practices around the opportunities presented by technology.

The Transfer of Risk from Entrepreneurs to Institutional Developers Affects Development Decisions

In the heyday of speculative office development (1980s) the decision to build was largely made by private companies backed by pools of readily available debt capital. Decisions to build with little or no pre-leasing placed the risk squarely with the developer. The developer could invest years in transforming many pieces of land into potential development sites. The recession of the 1990s transferred the decision-making process into the hands of more risk-averse pools of capital who viewed development as a business rather than a credit. Now more than ever before, tenants choose both the location and the building form based on their business cycle, not that of the local municipalities. Developing new sites has largely become more difficult without a commitment from a major tenant. This change is having an impact on all decisions, notably where to build and when. From a public policy perspective, the shift in the risk of development significantly affects not only where the jobs will be located but the ability of public policy to affect the location decisions of private companies. The key point is that the development cycle has now been extended so that it is no longer compatible with the business cycle - making it more difficult to reach critical mass in terms of leasing within a timeframe that is acceptable to prospective tenants.

Of the 360 buildings constructed in the region in the last ten years, only 15 proceeded with less than 60% of space pre-leased. Virtually no major building has been built without a lead tenant committed to a significant amount of space since the early 1990s. Average building sizes have dropped substantially since 1993. In the same time period the suburban office market has grown dramatically. The requirement for pre-lease commitments has shifted the risk from the developer to the tenant.

The result of this trend has been the creation of smaller buildings with fewer tenants in suburban municipalities on readily available, inexpensive land, where the planning approvals timeframe is relatively short. The realities of needing to prelease a significant proportion of floor space in order to initiate new construction therefore creates a bias in favour of new office construction in the 905 where tenants can be guaranteed that their space requirements can be delivered in a timely manner. Our research shows that, with few exceptions, tenants must be guaranteed delivery of new office space in a period of less than three years in order to make a commitment to the developer.

Amenities that Attract and Retain Talent are Unevenly Distributed in the Region

In today's creative economy, the old model of people moving to find jobs has been turned upside down. Creative workers (a broad term used to describe workers who are paid to think) are today just as likely to decide where to live and work based on quality of life factors than a specific job opportunity. In particular, clusters of cultural amenities can serve as powerful attractors for a creative talent pool. People are attracted to areas characterized by upscale shopping, restaurants, performing arts venues and art galleries, and the preservation and adaptation of heritage architecture, especially when these are mixed into the fabric of a lively, inviting urban environment. As Richard Florida (2004) of the University of Toronto, Rotman School of Business, suggested, "what creative people look for in communities are abundant high-quality amenities and experiences."

In light of this change, many municipal governments in the United States are taking action to provide high-quality pedestrian-oriented public spaces, cultural amenities, transportation and other infrastructure, because they have found that these investments can attract creative and knowledgeable talent in an increasingly mobile world. This trend is highlighted by such investments as the closure of Broadway to automobiles through New York's downtown, the creation of Millennium Park and other parks improvements in Chicago, and the development of transit and cycling systems in Portland.

With an attractive public realm, convenient pedestrian access, higher densities, and a mix of uses also come restaurants, designer boutiques, fitness clubs, theatres and other urban amenities that meet the expectations of the new generation of highly mobile talent. The presence of these types of amenities close to office locations can help to attract pools of talent to live and work in the same neighbourhood giving talent easy access to the workplace. This can help mitigate the impact of lost productivity resulting from congestion, a dissatisfied labour force, and limited access to professionals in related fields, among a range of other factors.

As detailed in our interviews, employers are now taking into account the costs associated with attracting, training, and retaining talent in their calculations of per-square-foot occupancy cost. Therefore amenities and transportation will play an increasingly important role in reducing costs. Furthermore, as the employment base of the GTA continues to trend toward office employment, creating the conditions to facilitate a mix of uses and intensification throughout the region will become increasingly important.

Demand for "Green" Development is Growing

Since the CUI's 2005 report, both landlords and tenants have become increasingly interested in the promise of "green" development. What began with a focus on investing in designs that reduce energy costs has become an important element in the competition for both customers and skilled employees. Tenants are increasingly demanding that new buildings incorporate the latest technologies and approaches in building science to ensure that that new workspace is environmentally sustainable. One interviewee called green development "the new normal."

Investing in a green building or in green building technologies does not necessarily imply certification under one of the many available green building standards – such as Leadership in Energy and Environmental Design (LEED). Although green building techniques are becoming more and more common, typically only flagship buildings in the downtown or large purpose-built offices in the suburbs are certified to the highest standards.

Since tenants typically pick up utility costs, developers have little incentive to build green unless the market demands green floor space. However, as more and more tenants consider long-term energy price trends, demand has been increasing. One interviewee suggested that "failing to invest in green technology today is like failing to invest in air conditioning in the 1960s – it will be the fastest way to become the owner of C-class office space." While lead tenants often demand that new buildings be built with a high level of energy performance, smaller tenants in the building do not make the investment to ensure that their interiors are meeting the same level of energy efficiency.

The City of Toronto has worked with the Toronto City Summit Alliance (TCSA) - now known as Civic Action - and others to support initiatives for “greening” commercial offices. The City is an active member of the TCSA’s Commercial Building Energy Leadership Council. The City’s Better Buildings Partnership has also been active in this area, and provides a direct connection to any available funding opportunities with the federal government’s energy conservation programs.

In terms of the shift towards "green" in suburban locations, several interviewees noted a growing demand for "high performance" buildings, particularly from tenants with employees housed in green buildings elsewhere. Several developers also remarked on the incongruity of constructing LEED Silver buildings in a sea of parking.

Other Developments Since 2005

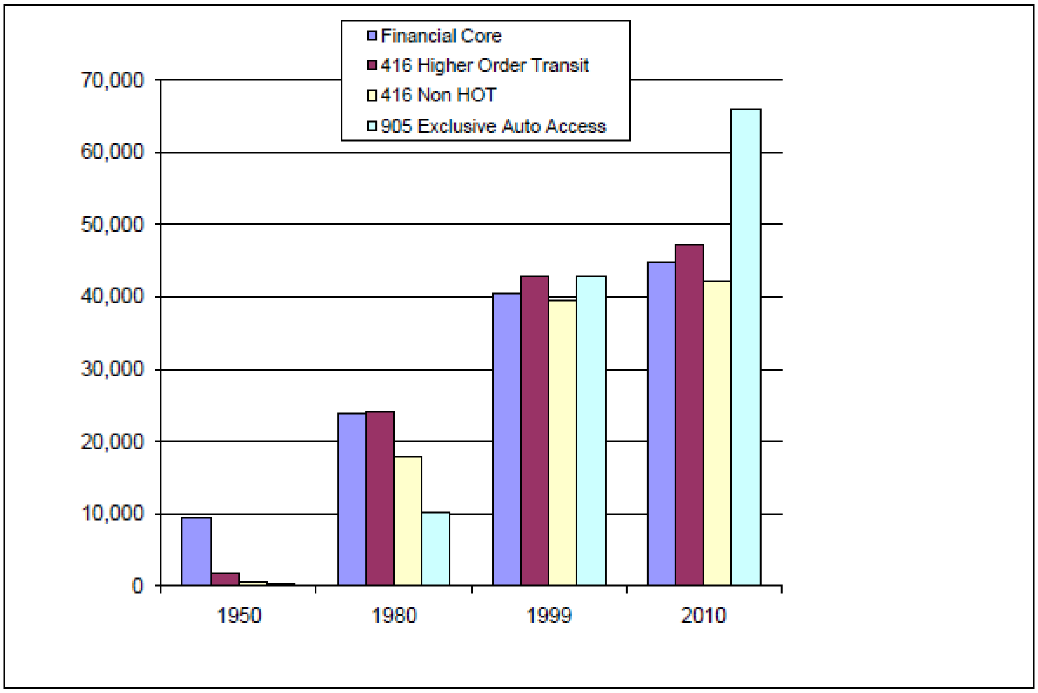
Employers in the financial core, the transit-oriented areas of Toronto, and the Brick and Beam districts also see the Island Airport as an important economic development asset for the City. With its exponential growth in commercial flights (from 25,000 passengers a year in 2005 to a projected 1 million in 2010), there is little doubt that it has begun to provide these sectors of the office market with a competitive advantage – both over other submarkets in the GTA as well as other cities in Canada. Since 2006, Porter has captured 23% of the Toronto-Ottawa market and 17% of the Toronto-Montreal market (Centre for Aviation, 2010). “The Island Airport certainly makes Toronto much more attractive. Use of Porter by [our firm] has skyrocketed – especially for our business in Chicago and Montreal – it gets used for almost every flight,” one employer told the research team.

While the major financial institutions had mixed opinions about the airport’s value to them directly, they did indicate that “the Island Airport is proving to be an excellent asset for downtown businesses and is viewed as a distinct competitive advantage for Toronto.” With Air Canada instituting service from the Island Airport, service levels are likely to continue to increase. It is no accident that air travel and office employment clusters are often found side by side. The growth around the Pearson Airport and Buttonville in Markham is no co-incidence, although the latter may not be around for long.

3. Change in the Geography of Offices since the 1950s

What is new about the new geography? Figure 3 indicates changes in the share of office space located in each of the four markets. The strongest growth has been in the suburban municipalities, while the share of Toronto transit-oriented submarket has remained relatively stable and that of the financial core has shrunk.

Figure 3 - Change in Employment Sectors Over-Time

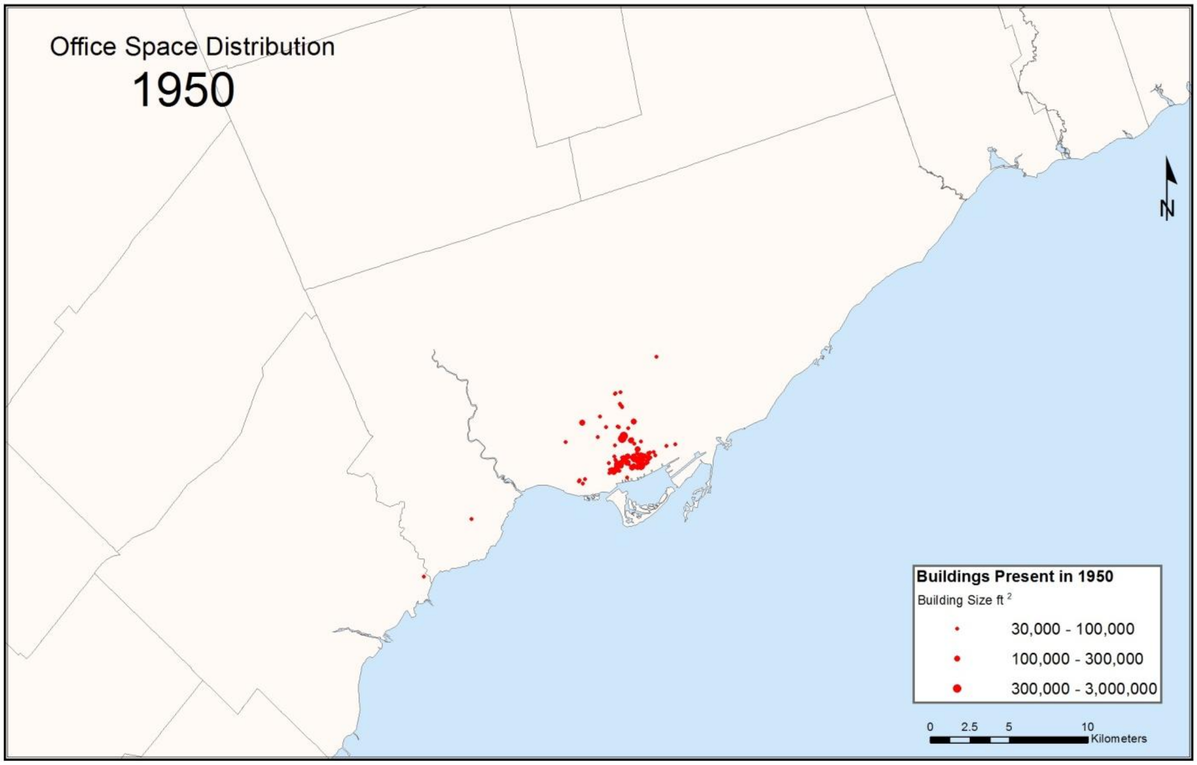


Pre-1950 Distribution

Almost 80% of all employment located in the City was in what is now referred to as the financial core in these early years (pre-1950) (Figure 4); there was very little commercial office development anywhere else. Much of the core was still reflective of the old city slightly east of Bay Street and requires some movement in the definition of the financial core, but not only was all the office space there so too were all the government buildings, educational facilities, cultural buildings and most of the shopping- Eaton's and Simpsons at Queen Street. It is not surprising that Yonge Street was the busiest Street west of Montreal or that it was chosen as the location for Canada's first subway.

Contrary to the popular belief that construction of the subway preceded growth of the office market, the Yonge Street subway's success on opening day was due to the fact that it served an existing base of high-density employment from the outset (Toronto's core) and as well acting as the cultural, religious and educational centre of the region. This point is worthy of note in the context of current plans to build rapid transit lines outside of the more urbanized part of the GTA in advance of higher density development.

Figure 4 - Office Space Distribution, 1950



1950-1980

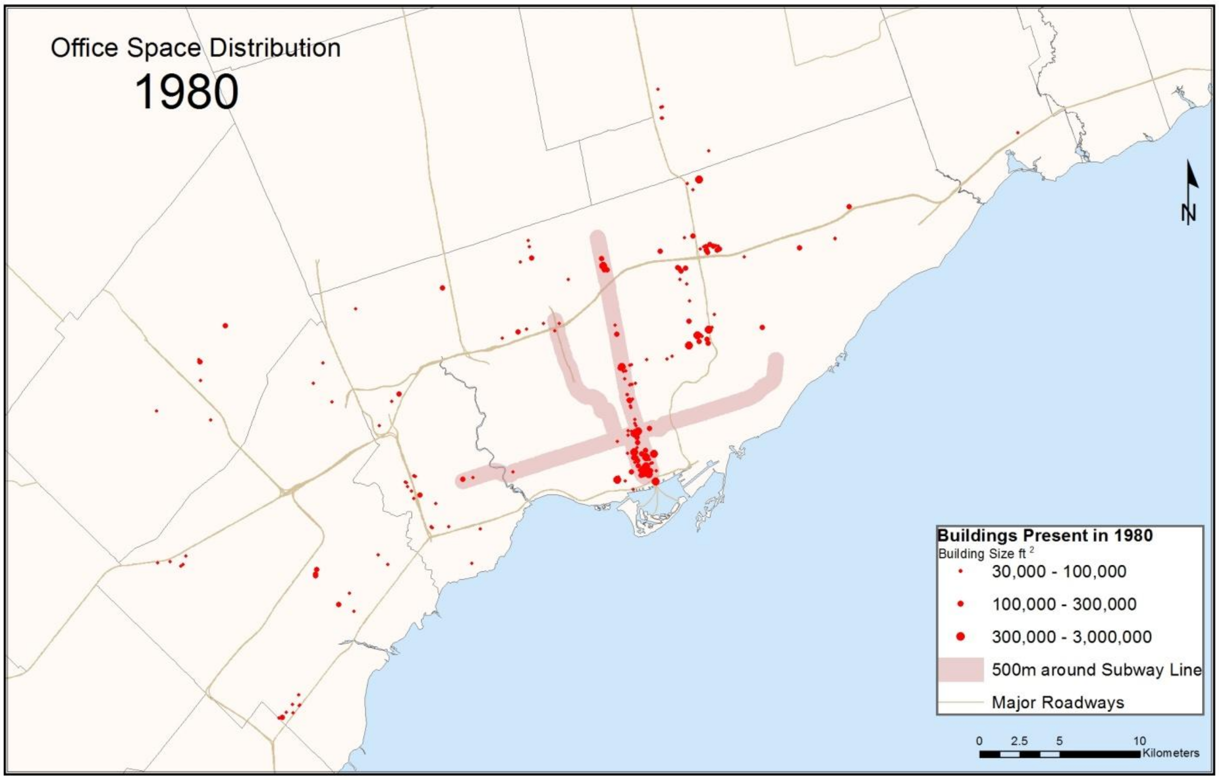
By 1980 (Figure 5) the financial core and all transit-supported office space was the dominant cluster, however, growth in scattered locations (Toronto non-transit) was emerging.

Although the freeway network was already under construction during this period, the Roads and Traffic department of Metro Toronto was busy improving the arterial road network. The combination of these factors began the process of opening up the potential for building office buildings in untried locations.

Between 1950 and 1969, most offices were in the 416 area (the former Metro Toronto) but a small amount of development was taking place in suburban Mississauga. At the same time as major downtown landmarks like the TD Centre and Commerce Court opened their doors, groupings of new, large floor plate buildings in suburban Toronto in locations like Eglinton and the Don Valley Expressway began to emerge, along with a smaller number of highway-oriented office buildings in former industrial parks adjacent to 400-series highways in what is now known as “the 905.”

The mid-1970s was also the “Reform” period at City Hall in Toronto, when stricter rules for development began to be enforced (such as height limits), prompting developers to seek sites outside of the core that were subject to fewer restrictions.

Figure 5 - Office Space Distribution, 1980



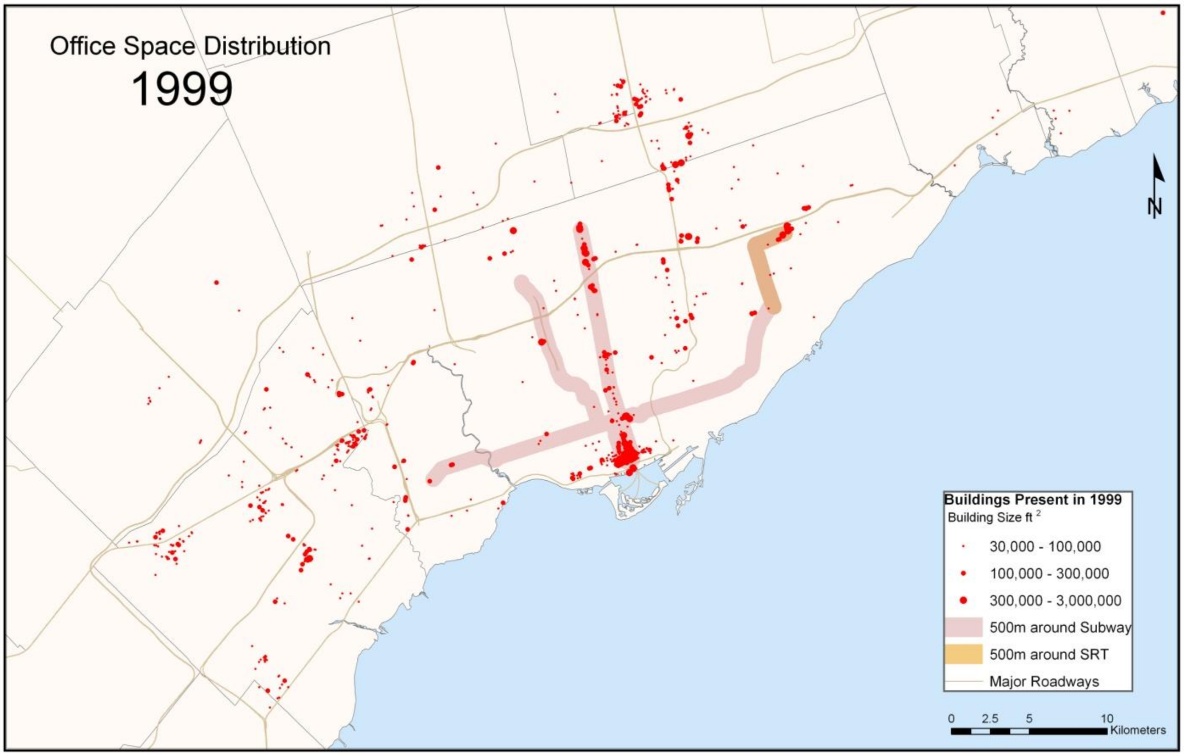
1980s-1990s

The total amount of new floor space added to the GTA in the 1980s and early 1990s was unprecedented, and has not been matched since. In downtown Toronto, major complexes such as the Sun Life Centre, Scotia Plaza and BCE Place (now known as Brookfield Place) came on stream in the 1980s and early 1990s. Significant amounts of development were also taking place in suburban locations within what was then Metro Toronto as well as beyond Toronto's borders in the area referred to today as the 905 (Figure 6).

The rapid rate of growth in the 905 put a strain on infrastructure, but also stretched the fiscal resources of suburban municipalities. These jurisdictions became heavily dependent on the development charge model to finance growth, avoiding where possible the need to transfer the cost structure of absorbing growth onto the tax base. The willingness of the province to invest in expansion of the 400 series highway system (and related trunk piped services) made these jurisdictions more accessible at little or no cost to the local municipalities in the short run.

Although a significant amount of growth occurred in the core and other transit-friendly locations adjacent to the Yonge subway in North York, over 20 million ft^2 of office development was built in scattered locations during this period, the equivalent of between 80,000 and 100,000 jobs. As a sign of things to come, approximately 11 million ft^2 of this growth took place in multiple locations in the 905, as developers responded to the demand for less expensive office space. These locations were accessible almost exclusively by car.

Figure 6 - Office Space Distribution, 1999



During this time, a considerable amount of office space was attracted to Mississauga City Centre- approximately 3M sq ft- which made it the largest concentration of office space in Mississauga. Circumstances changed after the recession in 1992, however, and no new office buildings have been built there since that time.

The sustained growth of two decades came to a sudden halt in 1991-92, by which time the vacancy and overbuilt environment led to a long period of low investment. This marked the end of the traditional “risk model” of development, characterized by the construction of large amounts of office space on a speculative basis. The last part of this period, from 1992 to 1999, saw very little development as the economy adjusted to the impact of the severe recession and large amount of floor space that was overbuilt relative to demand.

2000-2010

Figure 7 illustrates change during the post-recessionary period from 2000 to 2010. Just as the economy was starting to recover, the tax rules were changed. Current Value Assessment superseded the former business tax. The new commercial taxes applied to all business space, whether it was occupied or not (the former business tax had applied only to occupied premises). At the same time, the province imposed amalgamation on the former Metro Toronto and its six cities to create the current City of Toronto. Although the province insisted that amalgamation would lead to cost savings, the move increased costs in the city.

First, after rapid growth in almost every part of the region, development levels remained low for some years into the new decade. The Toronto core experienced virtually no office growth, and few projects were initiated anywhere in the 416. Much of the new office space was created through the renovation of former industrial buildings in the "Brick and Beam" areas either side of downtown Toronto (see discussion below).

New developments appeared also in Mississauga – notably the Airport Corporate Centre – and in scattered "non-cluster" locations throughout the 905. In the post-recession, major tenants drove development decisions, primarily through design-build deals with developers who no longer had an appetite for building "on spec." The average size of each new building in the 905 was smaller than in the financial core. These changes were attributable to changes in parking ratios that limited the amount of parking that could be provided and the requirement by financers that new projects could proceed only with a high percentage of the space committed.

This period also saw the beginnings of growth in the "Brick and Beam" districts on either side of the financial core. In 1996, the City of Toronto took the bold step of "deregulating" two areas of industrial development either side of the central business district known as the "Kings." The breakthrough occurred when politicians and planners acknowledged that the practice of maintaining historic industrial zoning in order to "preserve" the industrial function was a lost cause. The Kings were re-designated as "reinvestment" areas.

Since that time, these two areas, bounded by Queen Street on the north and Front Street to the south, have attracted new investment as landlords and tenants responded to the new rules. "King-Spadina" and "King-Parliament" make no distinction between commercial, industrial and residential use – provided that the uses are not noxious – and the principal planning mechanism is site plan approval, provided that buildings fit within prescribed built-form guidelines.

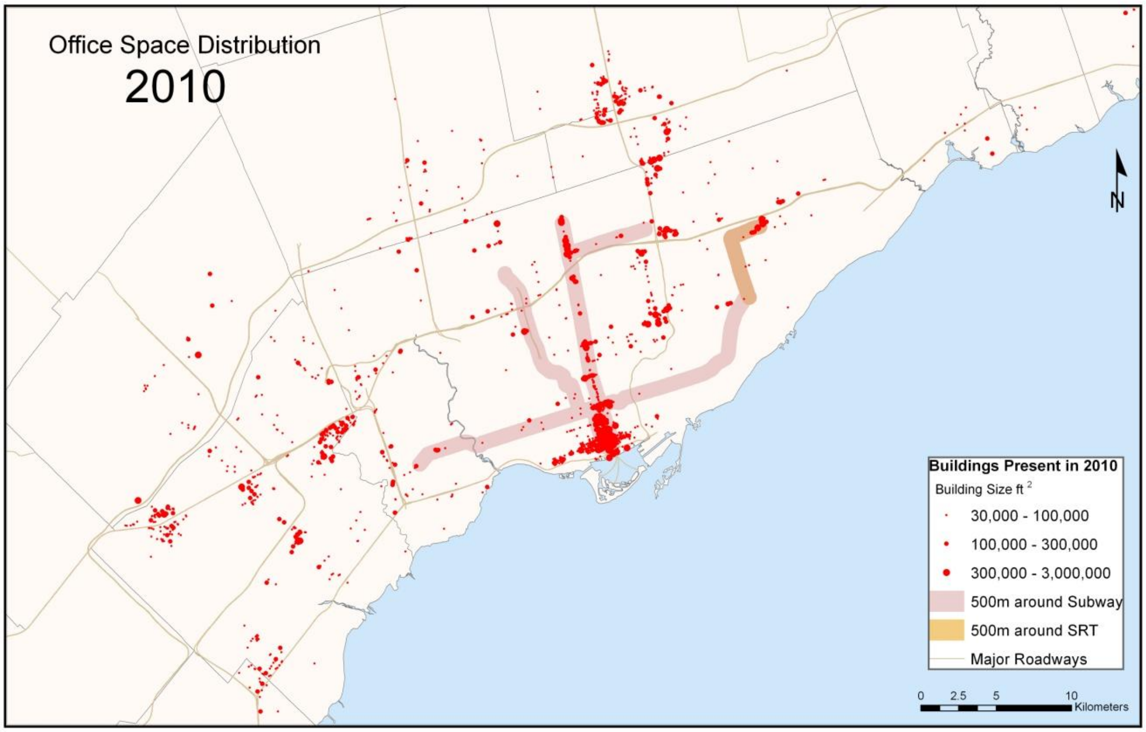
Over the past 15 years, more than 3 million ft^2 of office space has been introduced into the two zones. Characterized as "Brick-and-Beam" development, the two areas have also attracted many new condominium units [more than 100,000 units have been added in the central area of Toronto during this time], primarily as new build construction, although there have been some conversions of former factory buildings to "lofts."

After more than a decade of little or no activity in this sector, commercial office project cranes returned to the downtown skyline. The bulk of this growth is accounted for in just six buildings – the much-delayed Bay-Adelaide complex, the RBC-Dexia tower, Telus House, Maritime Life, the Mackenzie Investments building, and a tower anchored by Price Waterhouse Coopers.

Although volume was reduced in the 905, momentum continued with development primarily occurring in Mississauga's Airport Corporate Centre and Meadowvale.

Of 4.8 million ft^2 of new floor space built in the City of Toronto since January 2005, all but 200,000 ft^2 was built near higher-order transit (subway). However, floor space data alone cannot indicate how the region is evolving or how it will continue to evolve. Most of the new floor space was made available in a single year, 2009, and does not indicate a change in existing trends.

Figure 7 - Office Space Distribution, 2010



4. Realty Taxes: a Situation Largely at a Standstill

Real estate taxes form a relatively small component of total occupancy costs (but are still the largest single differential within markets), and decisions about location are largely based on function and the ability to tap specific labour pools. Sophisticated tenants take into account the gross costs of occupancy that includes the costs associated with how employees access their place of work.

Nevertheless, the office sector still suffers from tax inequities between properties in the City of Toronto and properties in the surrounding region, differences in educational tax rates across the region, the tax burden placed on the commercial office sector in Toronto, and caps and clawbacks on the office market. Despite the existence of numerous reports on these issues, it is worth summarizing the situation to date.

Ontario's 2007 Plan to Balance Business Education Tax

At the provincial level, the government set in place a process to rebalance the business education tax (BET) across the province in order to bring those municipalities with higher than average BET down to the provincial mean. While the education tax makes up only a small amount of total occupancy costs, employers in the City of Toronto and other mature urban centres are paying more per square foot than many newer suburban municipalities. This policy will have the effect of bringing Toronto in line with the provincial average, although the drop from 1.976% of assessed value to 1.6% will still leave Toronto with an education tax rate above that of some surrounding jurisdictions (Vaughan has a tax rate of 1.29% for example). By 2014 the province projects that total tax cuts for the business education tax, as it relates to commercial uses, will total over $200 million (Province of Ontario, 2007).

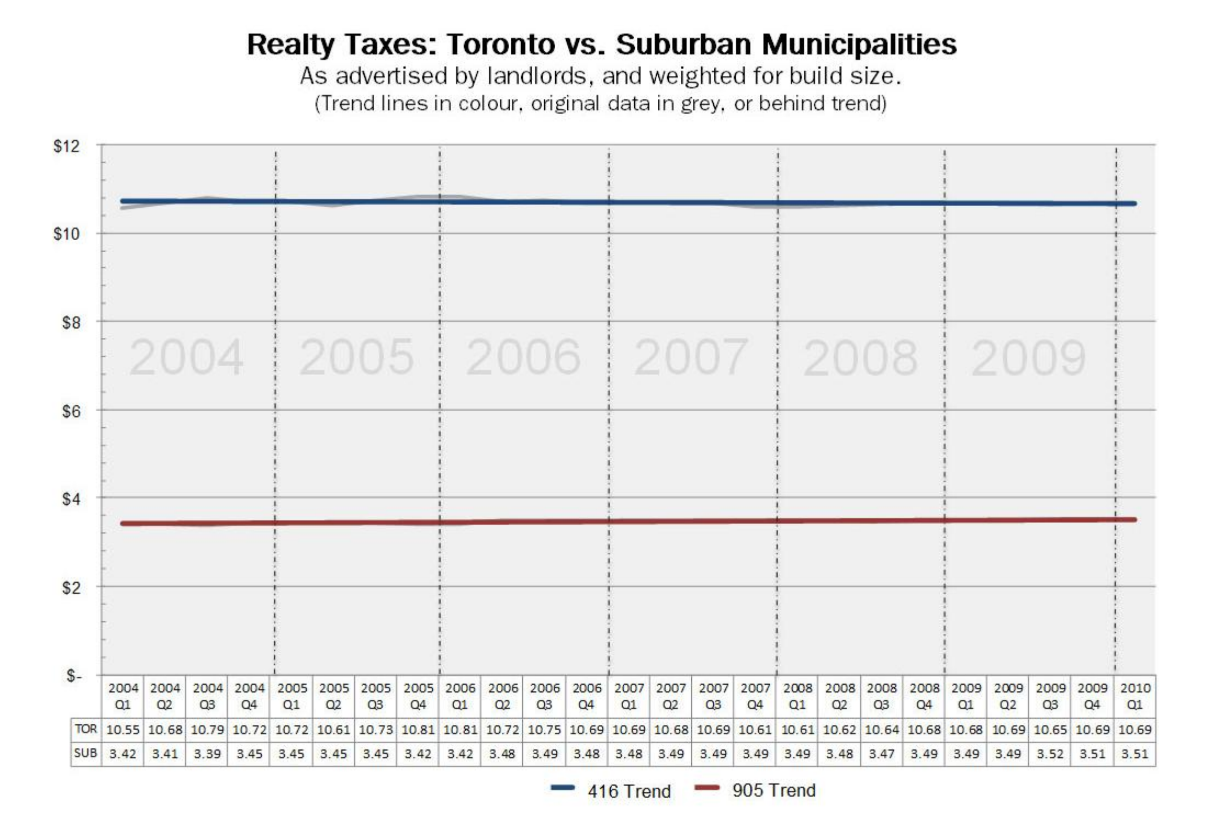
The education tax rate decrease will not affect existing buildings in Toronto until 2012 (municipalities with the highest rates are being rebalanced first). In the meantime, new buildings receive a temporary competitive advantage as the new rate applies to them immediately.

The Toronto-Regional Tax Imbalance

Despite the City's stated intention to lower realty taxes to make Toronto more competitive relative to the rest of the region, little has actually changed. Figure 8 illustrates this limited change since 2004 – the blue and red trend lines displayed on top of the actual data points show a tax trend that is flat.

Why has this trend not changed? First, the impact of policy related to BET has not come into effect for Toronto and will not affect most of the surrounding region. Second, providing tax rate incentives for new construction, as outlined in the Agenda for Prosperity, will not affect the overall average for the City for some time, since the amount of floor space constructed since 2005 is very small relative to the total. Third, lowering the commercial tax rate in Toronto would require increasing the tax rates associated with other classes.

Figure 8 - Realty Tax Differential between Toronto and the Rest of the Region, 2004-2009



	2004 Q1	2004 Q2	2004 Q3	2004 Q4	2005 Q1	2005 Q2	2005 Q3	2005 Q4	2006 Q1	2006 Q2	2006 Q3	2006 Q4
TOR	10.55	10.68	10.79	10.72	10.72	10.61	10.73	10.81	10.81	10.72	10.75	10.69
SUB	3.42	3.41	3.39	3.45	3.45	3.45	3.45	3.42	3.42	3.48	3.49	3.48

	2007 Q1	2007 Q2	2007 Q3	2007 Q4	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1
TOR	10.69	10.68	10.69	10.61	10.61	10.62	10.64	10.68	10.68	10.69	10.65	10.69	10.69
SUB	3.48	3.49	3.49	3.49	3.49	3.48	3.47	3.49	3.49	3.49	3.52	3.51	3.51

Rebalancing the Commercial-Residential Tax Burden

Rebalancing the commercial and residential tax burden is likely to remain one of the most substantial challenges the City of Toronto will face as it strives to set tax policy in the future. This rebalancing was referred to by one executive as “a shell game that will not solve the underlying problem.” Loading the burden onto residents can also be counter-productive, drive some talent out beyond City limits and other workers to cities with lower costs of living outside the region, which would lead to increased costs for the employer. Some interviewees cited this rebalancing as “unfair” while others indicated that residential taxes in Toronto are very reasonable compared to other municipalities.

The only way to accelerate the rebalancing of the burden is to substantially increase the commercial assessment in the city – which is made more difficult by higher tax rates – or to obtain funding from higher levels of government to help offset costs that were downloaded to the City by the province in the late 1990s. In addition to social services, “the City is burdened with more than its fair share of infrastructure costs,” one interviewee suggested. There is a balancing act that must be achieved between reducing the burden on commercial office, increasing commercial assessment, increasing the burden on residents, lowering municipal costs, and ramping up senior government funding to Toronto that must carefully managed.

Some rebalancing is taking place, however. The City of Toronto has lowered its tax ratio. In 2003 the tax ratio in Toronto was 3.52. Today, this ratio has been decreased to 3.37, a decrease of 4.3%. To put this in perspective, Oakville's ratio remained constant while Markham's increased and Mississauga's decreased (see Table 1).

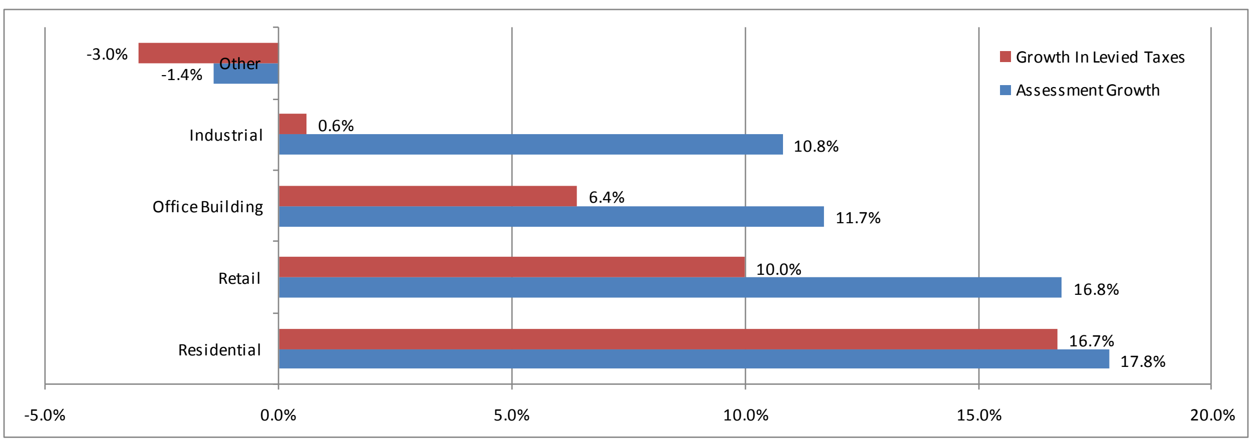
Table 1 - Commercial Office Tax Ratios

Commercial Office Tax Ratios (rounded to two-decimals)			
	2003[2]	2009[3]	% change
Toronto	3.52	3.37	-4.3%
Markham	1.10	1.21	10.0%
Mississauga	1.30	1.21	-6.9%
Oakville[1]	1.46	1.46	0.0%

Note 1: Oakville's 2009 tax ratio represents 2008 published value
Note 2: Source: Office Competitiveness in the GTA, Canadian Urban Institute, 2005
Note 3: Sources: published sources from Toronto and select suburban municipalities

Another way to illustrate the rebalancing under way is to compare the increase in taxes levied relative to total assessment on a class-by-class basis. Figure 9 illustrates that, for the office sector, assessment increased by 11.7% between 2003 and 2007, while taxes levied during the same period increased by only 6.4%, while the residential class saw approximately equal growth in taxes as in assessment (Province of Ontario Ministry of Municipal Affairs, 2003; Province of Ontario Ministry of Municipal Affairs, 2008).

Figure 9 - Tax Levy Increases Relative to Assessment Base Growth, Toronto 2003-2007



The business community was taken by surprise in 2009. Although a presentation on the proposed city operating budget had identified an increase in the commercial property tax rate of 1.33%, the actual effective increase turned out to be 2.93% when the new budget was implemented. As the Toronto Board of Trade reported in February 2010, this "represents the second-highest tax rate increase since the amalgamation of Toronto in 1998." It appears that progress made in previous years in terms of implementing the policies adopted as a result of *Enhancing Toronto's Business Climate* has been undermined by this unexpected increase.

Businesses need to be able to forecast their own budgets, and they expect that what a municipality announces as its own budget will match the actual budget as implemented. When the City of

Toronto's projections prove to be unreliable, the City appears to be less competitive in the eyes of the business community.

Caps and Clawbacks in the Commercial Sector

Caps and clawbacks have introduced new inequities whereby some office buildings carry an unfair portion of the commercial tax burden. While the tax burden is usually defined as the inequity between residential and non-residential tax classes, caps (and their by-product, clawbacks) have created a new problem between sectors of the commercial class itself. However, evaluating the impacts associated with these programs is difficult, because they are determined on a property-by-property basis and as a result the information is confidential.

Because caps affect only buildings previously assessed below actual market value, a "tax gap" is created in the total amount of tax revenue the City would otherwise collect if the cap were not in place. To make up for this gap, those properties that were previously over-assessed when Current Value Assessment (CVA) was introduced, are required to offset the tax shortage through clawbacks – i.e. they continue to be taxed based on their previously over-assessed value.

Table 2 illustrates the City's interpretation of how moving to CVA and eliminating caps and clawbacks will play out between now and 2014 in Toronto.

Table 2 - Impact of Moving to Full CVA Taxes (eliminating caps & clawbacks)

Property Type	Taxes Paid (2004) ($M)	Impact of CVA (%)
Condominium	23.5	-8.9%
Hotel/Motel	93.9	-24.9%
Large Office Towers	450.9	-4.9%
Office Building < 50,000 ft^2	**549.2**	**-12.2%**
Neighbourhood Shopping	210.7	-4.9%
Parking Lots	12.9	209.5%
Regional Shopping Centres	126.6	8.0%
Retail/Strip Retail	143.1	54.2%
Other	248.4	3.6%
*Source: Enhancing Toronto's Business Climate, City of Toronto, 2005.		

A majority of interviewees in 2005 cited realty taxes and rent as the two primary drivers of location and competitiveness. Addressing the tax inequities across the region, particularly in light of Current Value Assessment which had been introduced only seven years earlier, was the primary concern of the industry and tenants at the time. This is not the case today.

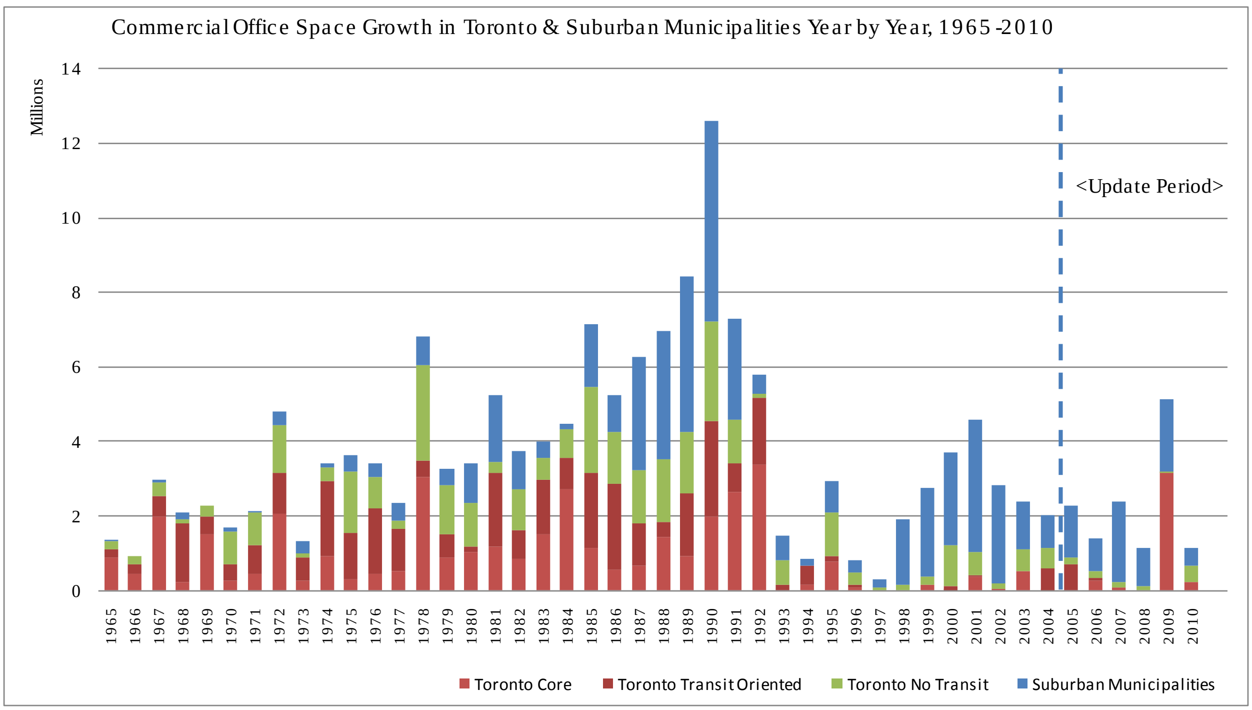
In 2005, average per-foot realty taxes in the region sat at about $9 -- this remains essentially unchanged today. Most of those interviewed for the 2010 update cited taxes as an important issue -- one that shouldn't be forgotten in the course of carrying out new research -- but a range of other crucial issues that need attention are emerging.

5. The Consequences of Business-As-Usual Approaches

Throughout the 1990s, during arguably the toughest decade in office development in North America, and through the post-1990s boom in suburban development, the region has added an average of 3 million ft² to its office floor space inventory each year.

Since 1993 the demand in the GTA for new office space has predominantly been in the suburban markets. The only substantial growth in the transit-oriented and core areas of Toronto took place in 2009. Some of these new downtown office buildings have been developed outside the financial core, in order to take advantage of properties that have lower assessment values than those in the core, thereby reducing operating costs for tenants and making the buildings more competitive.

Figure 10 - Commercial Office Space Growth, 1965-2010

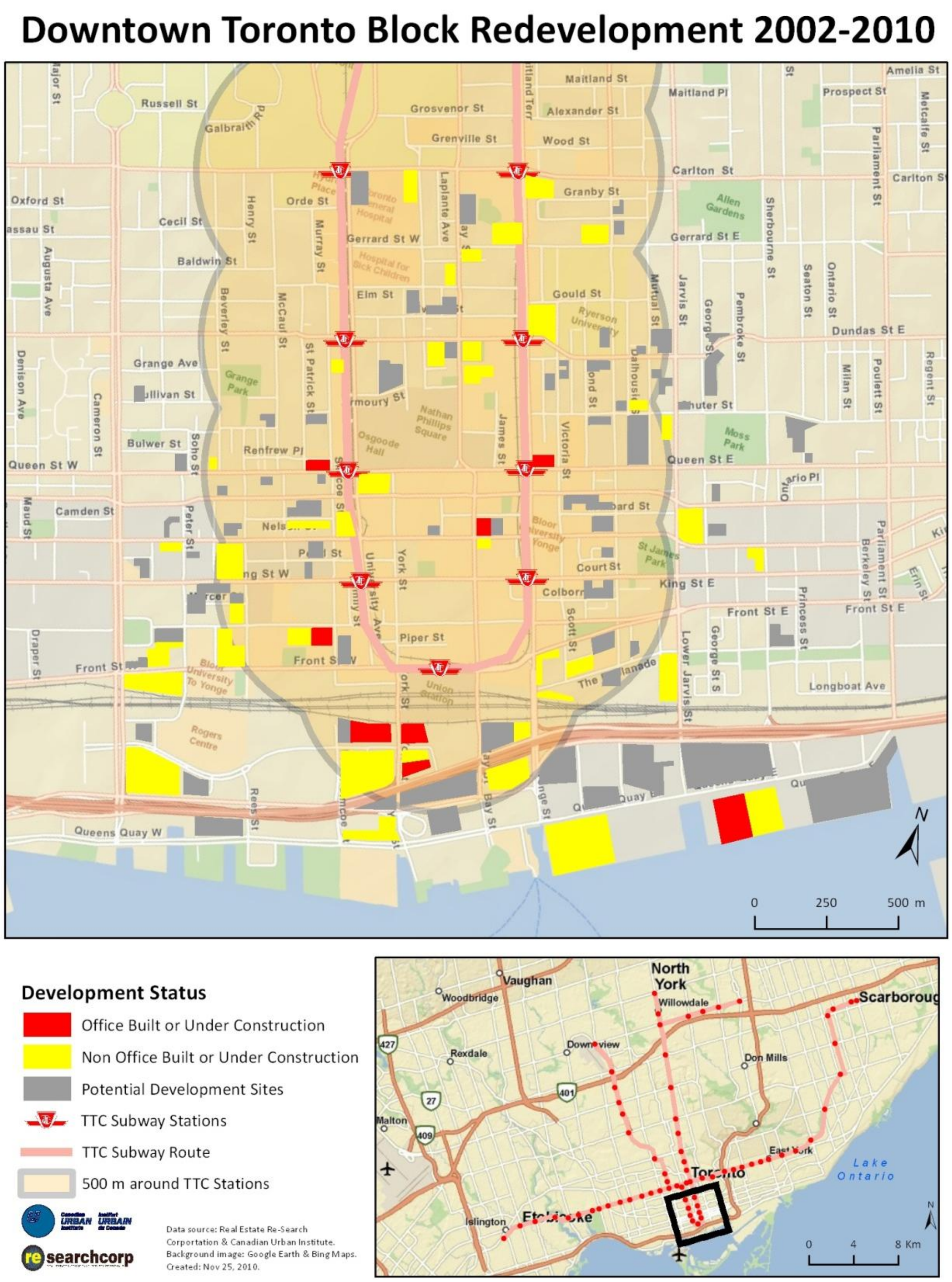


If we extrapolate existing trends and look forward 10 years, where will 30 million ft² of office employment space go? Given current trends and policies (that is, business as usual), most of this space will be dispersed throughout the region in low-density auto-dependent configurations and the region as a whole will face the high infrastructure costs coupled with lower productivity – thereby increasing costs for all levels of government and for taxpayers.

Instead, if this development were strategically located in line with public-sector infrastructure investment so that this investment complements employment as well as residential uses and each submarket can benefit from the connection of homes with places of work, the region would be more competitive in the long run.

At the moment, statistics do not demonstrate any change away from the suburban development trend. Thus decision makers, planners and the industry all must ask themselves how conditions on the ground can be created to ensure that the long-term competitiveness of the region is not adversely affected. A report prepared for the Toronto Financial Services Alliance by the Boston Consulting Group (2009) stated that the sector ought to add 40,000 new jobs, but there is no accompanying strategy to create the office space (8M sq ft) needed to accommodate these jobs within the financial core. Figure 11 shows how potential office sites have been lost since 2002.

Figure 11 - Downtown Toronto Block Re-Development, 2002-2010

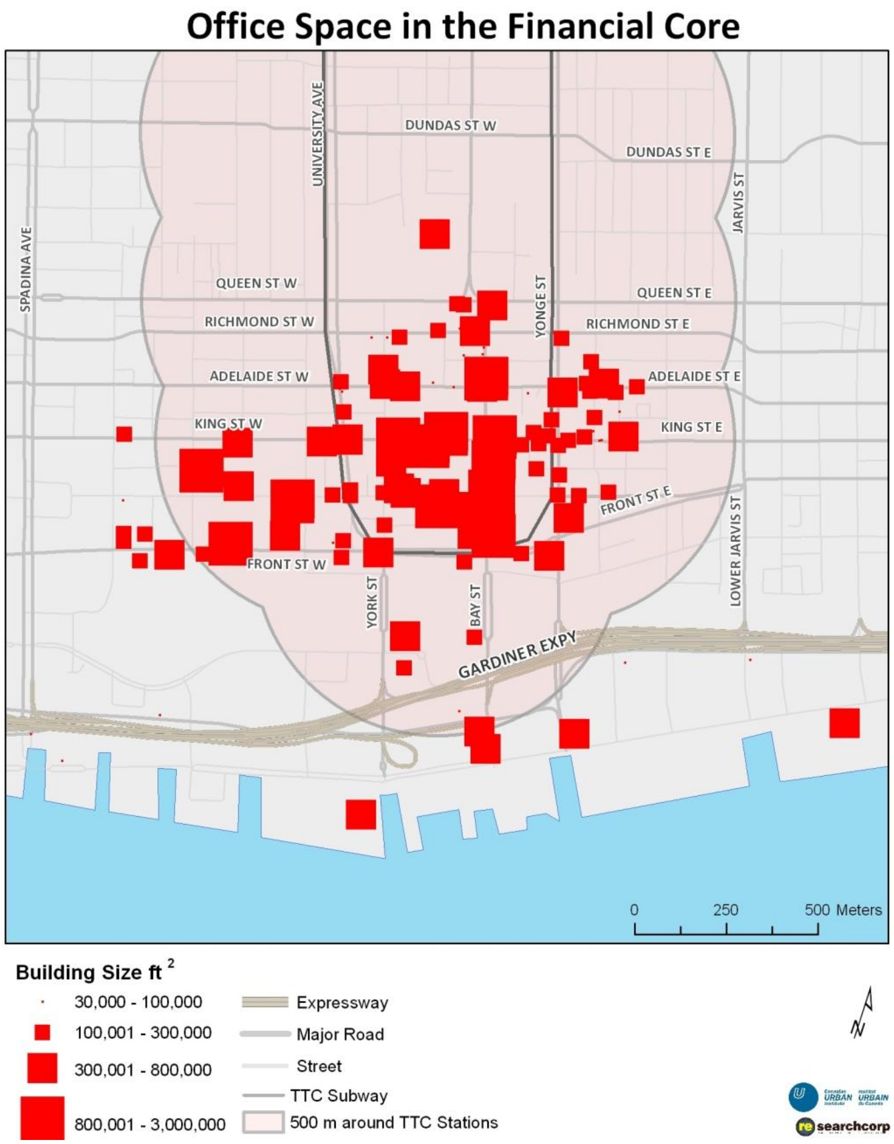


The Financial Core

Thirty years ago, office employment was heavily concentrated in the downtown core, which housed a wide range of businesses, from engineering offices to publishing firms to the head offices of manufacturing companies to financial and legal services.

Today, only approximately 22% of the region's office capacity is in Toronto's financial core, and the area has a much narrower range of types of business. The head offices, publishing firms, and engineering companies have largely moved out to suburban areas, sometimes elsewhere in the City of Toronto, but mostly to the "905" region. For the most part, what remains are businesses in or affiliated with the financial services sector (Figure 12).

Figure 12 - Office Space in the Financial Core



This specialization of the downtown core has both benefits and drawbacks. On one hand, Toronto has become an important city in the network of global financial centres; the sector is relatively strong and continuing to grow. On the other, the lack of diversity in the downtown core makes the area vulnerable to downturns in the sector on which it depends.

Largely, this situation has developed because of land use and tax policy shifts that have made it harder and more expensive to add new or flexible office space in the core. In recent decades, the reallocation of developable sites to residential and other uses in the core has reduced the number of available sites close to transit that could be developed for offices. At the same time, the length of the approvals process required to bring a site to development readiness has increased to the point at which developers are often unable to meet the expectations of tenants seeking large amounts of contiguous space.

The cost of land assembly is possibly the most significant component of office development. Sites in the financial core are much more expensive than those elsewhere in the region. Factored into these costs is the zoning attached to the lands. Zoning determines the cost of each buildable foot, which influences land value. Since developers often wish to increase their permitted density, the cost and time required to gain such approvals can be extensive, ranging between three and four years depending on the complexity of the site. Even for sites that notionally have “as of right” zoning, two years for site plan approval is not uncommon.

Hard costs, or the actual cost to construct, vary principally in terms of the construction method relative to its size. High-rise office towers cost more to construct not only because more materials are involved, but also because construction methods are more sophisticated. Downtown sites are considerably more constrained than those in greenfield sites, adding costs as well as complexity. For example, busy roads must be closed to bring in equipment, and infrastructure may need to be re-routed. As a result, the time needed to construct a new office tower in Toronto is – by definition – considerably longer than in the suburbs.

Despite the recent recession, Toronto’s housing market continues to be relatively strong with new condominium starts occurring almost monthly. All around the downtown core cranes reach into the sky – the bulk of which have nothing to do with the office industry (see Figure 11). Condominium development in Toronto continues to outpace many major North American cities and this has caught the attention of the office sector. When sites for other non-office use are added into the equation (such as hotels or entertainment venues), the cumulative impact on the number of suitable sites for office is considerable.

At present, there are relatively few large development parcels remaining in Toronto’s downtown and, in some cases, available sites are being filled by residential developments. Two such examples are the Shangri-la site on University Avenue and the Trump site in the heart of the financial district on Bay Street. At the same time, the office market is moving into areas that have traditionally been the territory of residential developers – both in the "Brick and Beam" district and south of the Union Station rail corridor.

Despite the desire to create 40,000 new jobs in the financial services sector, if Toronto is to remain competitive as a global financial centre, there is no accompanying plan for where these jobs are to be housed. Just as municipalities act to protect derelict industrial parks for employment uses, there is a need to protect scarce prime office sites in the downtown, or at least signal that office uses have priority.

At the same time, protecting space for offices without supporting their occupants is similar to preserving farmland without protecting farmers. The financial sector is to some extent the victim of its own stability and success; it has been largely taken for granted as a driver of growth and prosperity and does not benefit from government support and special programs to help maintain its global status.

What would be the consequences of business as usual for the financial core?

Given the constraints on expansion in the financial core, any new jobs added will have to be accommodated elsewhere in the region, further reducing the downtown's share of office space and jobs relative to the rest of the region. Scarcity of space will also likely drive up prices and occupancy costs, so that only the largest companies will be able to afford space in the core.

As the core becomes less diverse, it will inevitably depend more and more heavily on the financial sector. If Toronto can maintain and strengthen its position as a leader in the global financial sector, the core will prosper, but if that position is weakened in any way, it will affect the health of this central area.

Without greater recognition of the value of the financial sector, Toronto risks losing some of the key financial companies in the core of the city. An industry executive quoted in the Boston Consulting Group report *Partnership and Action* (2009) noted, "If any one of Toronto's major financial institutions relocated, it would be a devastating blow, but nothing is being done to encourage us to stay." (p. 30). The report includes a menu of strategies that would encourage the existing firms to stay, and the Toronto Financial Services Working Group will, it is hoped, follow up on the recommendations.

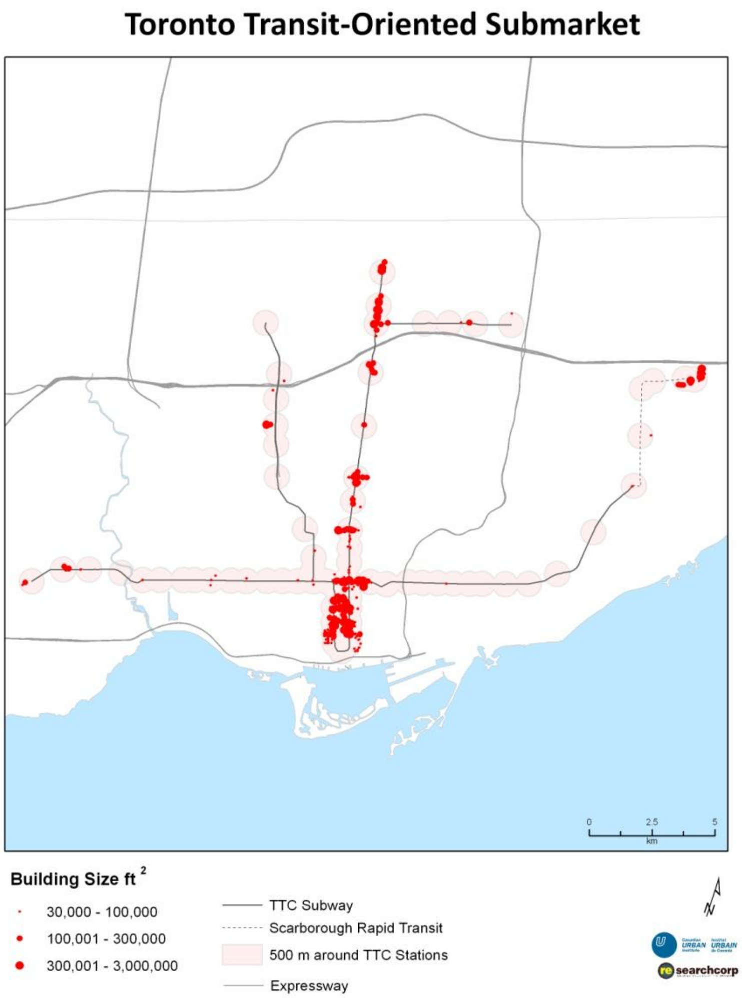
Toronto Transit-Oriented Office Clusters

Of all the changes in the office market since the 1950s, perhaps the most worrying is that the share of the market in transit-oriented locations is smaller today than it was at the middle of the previous century, despite massive growth in market share through to the 1980s. In 1950, transit-oriented development was focused in the core and on street railway lines. By 1980, the subway system had dramatically expanded the share of the transit-oriented submarket, with a major proportion of new development attracted to locations within a five-minute walk of the subway. However, between 1980 and today the transit-oriented share of the market has fallen below 1950 levels.

The only substantial growth in the transit-oriented and core areas of Toronto took place in 2009. Some of these new downtown office buildings have been developed outside the financial core, in order to take advantage of properties with lower assessment values than those in the core, thereby reducing operating costs for tenants and making the buildings more competitive (see Figure 11).

The transit-oriented submarket, like the financial core, is constrained by the limited availability of space in which to expand (Figure 13), caused largely by the conversion of former employment areas to residential areas. In some cases, employers have responded by increasing the density of workers in the available space. In some parts of the city, the space occupied per employee has fallen to 104 ft^2 (with a desk ratio of about 140 ft^2 per desk). To achieve these densities, sophisticated tenants are shrinking workspaces while adding more common space within the office for collaboration or to provide a variety of work environments within the same physical space. While this approach requires that employees work remotely one or two days each week, on any given day there can still be more people in these work spaces than provided for in previous models of floor space design.

Figure 13 - Toronto Transit-Oriented Submarket



The one part of this submarket that is thriving is the “Brick and Beam” district to the east and west of the financial core. The principal source of demand for office space in this district comes from the so-called “creative industries” – software developers, new media, NGOs and the like. In addition to providing interesting office space in an exciting environment, the "Brick and Beam" area attracts workers who live within walking or cycling distance of their office, or who have reasonably swift access by public transit. Thus there is a clear relationship between the surge in residential growth in Toronto's central area and the demand for office space.

The role of the "Brick and Beam" area in the Toronto office market should not be underestimated. In addition to filling an important niche in the market, the "Brick and Beam" redevelopment process places considerably less pressure on prospective landlords. The former industrial structures are often built out at densities that exceed all but the largest office projects. The floor plates also lend themselves to the assembly of many smaller tenancies rather than requiring that the landlord secure a single large tenant. Although an elite group of developers have created significant portfolios of high-quality renovated space, there are also properties in the area that offer "the look" of exposed brick at lower cost but without upgraded services.

What would be the consequences of business as usual for the transit-oriented submarket?

The lack of growth in the Toronto transit-oriented submarket represents a wasted infrastructure asset. Despite municipal policies to encourage development along Toronto's "Avenues" (major streets with transit access), many parts of the existing system are underused. Some stations on the Bloor-Danforth and Spadina subway lines are surrounded by medium or low-density residential areas. At the same time, expansions of the subway and streetcar lines have been planned for underserved residential areas rather than office employment clusters. Attempts to create new "downtowns" within Toronto (such as those in Scarborough and Etobicoke) have not found favour with the office market and the North York Centre has stalled in terms of attracting new offices.

If increasing road congestion starts to stall development in suburban locations, the development potential of Toronto's transit-oriented office clusters may be recognized, even in the absence of policies to promote their growth. However, developers would have to contend with restrictive zoning regulations in these areas that might continue to thwart the growth of this submarket.

Despite the success of the "Brick and Beam" district, the City is not at present moving to reproduce the same approach in other areas in need of revitalization. The same approach could benefit areas of the city in which there are underused industrial buildings, but to date there are no plans to create new "Brick and Beam" districts elsewhere in the City.

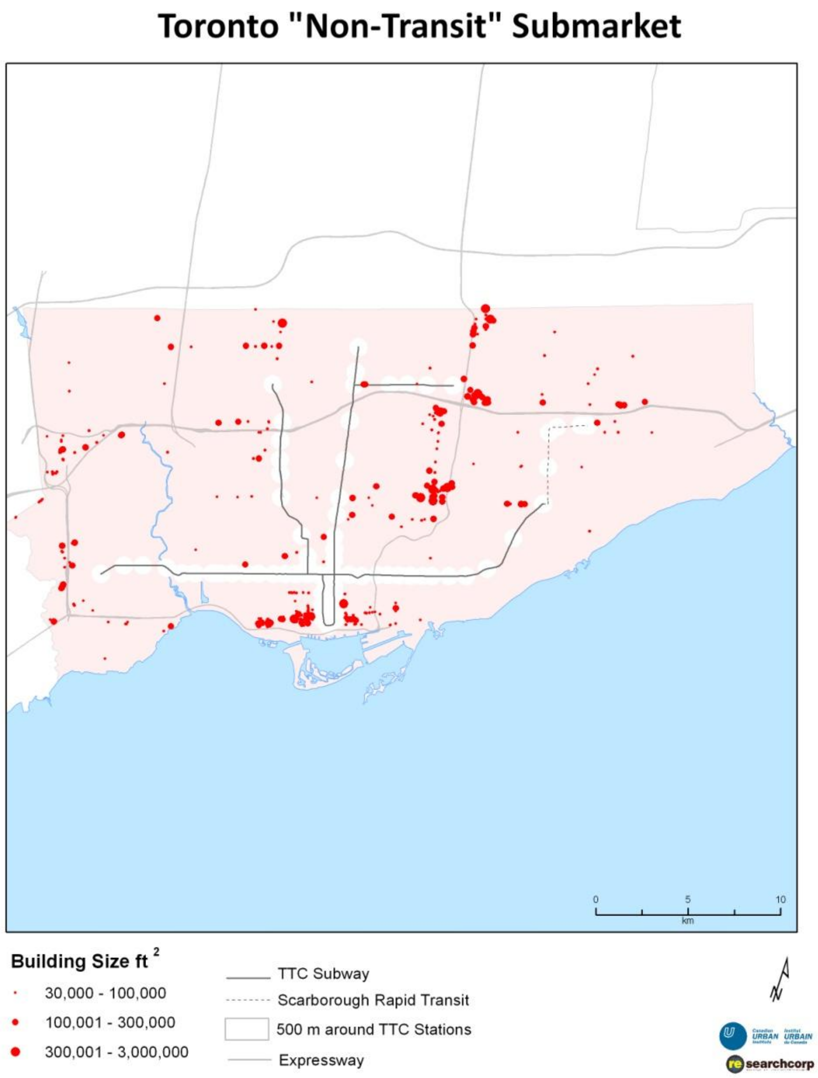
Toronto Non-Transit Office Clusters

There has been no new growth to speak of in this submarket for more than 25 years (Figure 14). This is the submarket in which tax inequities are most keenly felt by landlords and tenants, because higher taxes are not matched with benefits such as a rapid transit and access to amenities.

This situation exists because the commercial tax class applies uniformly to all existing office buildings in the City of Toronto, regardless of whether or not they are served by rapid transit. For buildings in clusters near municipal borders, landlords and tenants bear a particularly unfair burden, because office buildings in the same cluster located on the other side of the border benefit from considerably lower tax rates. This situation discourages landlords from investing in their properties, because they are forced to accept lower net rents in order to be competitive.

The lack of transit coverage to the city as a whole was seen by some interviewees as a feature that makes Toronto less competitive relative to other cities. As one person put it, “Look at Chicago – two airports, suburbs, and the core all connected efficiently by the transit system. Executives there laugh at you when you tell them you drive to work in Toronto.”

Figure 14 - Toronto “Non-Transit” Submarket



The lack of amenities in these clusters may also discourage potential employees, who would prefer a more accessible location with better options for dining, shopping, and recreation. One interviewee linked the rapid decline of an office cluster in this submarket to the fact that “there was not even a restaurant where anyone could have lunch. It was basically ‘drive to the mall’ every time.” The physical layout of suburban office clusters is also a deterrent to launching ancillary retail or other amenities, because relatively small buildings are separated by large parking lots, effectively eliminating the possibility of walk-in traffic.

Although these areas are perhaps the least competitive in the region, and can perhaps be expected to shrink over time, there is nonetheless a need to protect the existing investment in large office clusters in this submarket. Ideally, the expansion of transit services to underserved office clusters would mean that they would eventually be classified as "transit-oriented areas." Diversifying land uses in office-only areas would also allow for the addition of amenities that would make them more appealing to workers.

What would be the consequences of business as usual for the non-transit submarket?

If the City's transit plans do not reconnect these areas with the rest of the City, and the areas are not revitalized to add amenities, the future likely holds only further stagnation and decline in this submarket.

The inability to improve conditions in this submarket will contribute to a loss of competitiveness relative to other North American cities such as Chicago, where wages are higher, the cost of living is lower, the transit system effectively connects all parts of the city and connects people both to the type of lifestyle they want at home and the amenities they value for their time off. One interviewee noted: "We send employees there [to Chicago] to work – tens of thousands, but I've never once been able to bring one back."

Suburban Car-Dependent Office Clusters

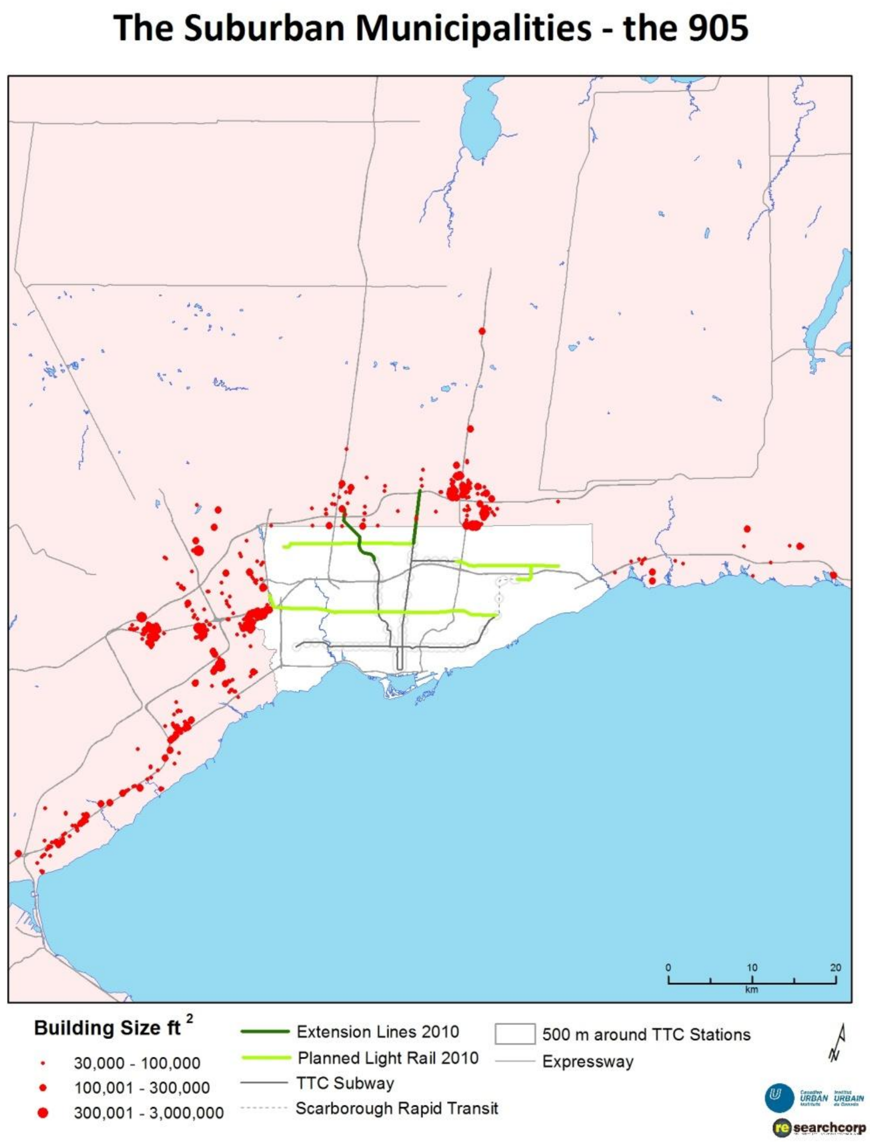
The rapid growth of office clusters adjacent to the 400-series and other highways (Figure 15) has created important new commercial assets, but called into question the long-term effects of car dependence.

One major tenant with offices in all four submarkets explained that mode-split is polarized between the car-dependent suburbs and transit-oriented locations in the City of Toronto: only 15% of its employees commuting to downtown use their cars, while virtually all employees in the suburban locations drive because of a lack of alternatives, leading to increased road congestion.

Congestion has been increasing over the past four decades for a variety of reasons. First, car ownership has increased dramatically, brought on by ongoing suburbanization and the creation of auto-dependent neighbourhoods. This has been coupled with an increase in car ownership and a decrease in the number of passengers per vehicle. Commuting patterns are also becoming more complex as employment has become spread across suburban municipalities (Miller & Shalaby, 2003). Congestion issues are seen as a problem primarily in the suburbs. "Increasing suburban office growth is the worst thing we can do to limit congestion or promote green," one tenant suggested.

At the same time, interviewees noted that some municipalities in the GTA are considering introducing maximum parking standards. Some employers fear that combined with the trend to increase the employee density within offices, this move will limit flexibility and lead to a shortage of employee parking, unless transit is introduced at the same time to offer a reasonable alternative. As one interviewee put it, "When parking standards are too restrictive, this can affect pre-leasing and stifle development."

Figure 15 - The Suburban Municipalities - the 905



Another interviewee commented, "The example of Vaughan Corporate Centre is instructive. Although there is promise of extending the subway to Vaughan, the municipality is insisting on reduced parking from the outset. This is counterproductive, because prospective tenants will not sign on to new development with reduced parking when transit is still years away. It is important to preserve opportunities to allow a transition to occur when the market is ready."

What this comment reflects is not just a need for parking, but frustration at how long it is taking to create new transit lines in the areas around Toronto. An interviewee commented, "Get people on comfortable, convenient transit and the congestion will go away... It is like [road] tolls. You can't limit parking if there isn't an alternative."

There is evidence that some workers are choosing housing close to their place of employment as a way to reduce commuting times. Over time, however, worsening congestion is likely to affect employers if workers shift their allegiances to companies located in places that offer shorter commuting distances and more amenities. A competitive office market is one that offers choices to workers who want a high quality of life. This, coupled with rising energy prices, is seen by at least one major landlord to favour transit-oriented urban locations over suburban ones in the future.

Interviewees suggested that some degree of consistent, continuous improvement in transit service to suburban office clusters, coupled with major changes in approaches to regulating land use were essential ingredients in overcoming problems associated with congestion, and that funding needed to be made in a strategic way to improve access to the workplace by employees. "Senior levels of government need to fund transit. Transit strengthens the city core and cities are the foundations of economies today," said one major tenant with interests across the region. At the same time, new or increased taxes – that is, disincentives – were not seen as a favourable alternative to leverage funding, but rather a realignment of spending priorities to ensure that tax dollars spent on any given project are being maximized.

Road tolls and taxes on vehicle miles travelled were seen as a "tax on business," particularly business in suburban municipalities where public transit is not presently a viable option to move people between home and work. Without alternatives in place first, tolls and taxes were judged to have at least one of the two following impacts by most employers: either these costs would be passed through to the employer by employees during salary negotiations and/or through cost of living increases, or increased costs for employees could affect employee retention, with consequences for training and other human-resource-related costs. Likewise, parking surcharges were not seen as an effective way to change behaviour and would simply add to the cost of doing business.

Beyond strategic, well-placed investment, transportation demand management (TDM) can play an important role in improving vehicle occupancy and limiting congestion in the short and medium terms – an approach supported by interviewees. TDM programs focus on making the best use of roads, highways, and transit by focusing on the needs of workers. Promoting employee carpooling, car sharing, alternative work schedules, and pedestrian environment improvements are all examples of TDM.

The other challenge for these areas is the lack of amenities. Most office parks and campuses in the suburbs have been planned as single-use areas (existing industry continues to co-exist with office buildings in many cases). Although the rationale

Figure 16 - Shangri-la development on University Avenue

behind restricting development to employment uses made sense during the early years of growth, today few of these areas offer much in the way of amenities or services.

As one business owner noted, “905 sites have challenges with providing amenities. The costs of providing amenities have to be borne privately until there is sufficient critical mass to support retail and related amenity development. Tenants and landlords tend to invest in suburban amenities to compensate for a sterile environment.” This means that a company that locates in a suburban location will have added costs for providing the kind of amenities needed to attract the employees they want – such as exercise facilities, cafeterias, and the like.

Other interviewees said that they simply avoid the 905 submarket, because the employees they want are young knowledge workers who would find the suburban office campus a deterrent. These workers want easy access to the amenities of downtown or midtown Toronto, including nightlife, upscale shopping, and cultural institutions.

As the GTA office market continues to mature, the time has come to build a more attractive and ultimately more sustainable, pedestrian-friendly working environment in these suburban office clusters.

What would be the consequences of business as usual for the suburban submarket?

Office parks that provide office employment uses only, and do not include the kind of shops and services offered in urban areas, will remain auto-dependent and become increasingly less competitive as congestion in suburban locations worsens. Moreover, new office development in isolated suburban areas, away from existing clusters with unused development potential will lead to further employment sprawl.

Current initiatives intended to mitigate congestion and improve mobility within the region by expanding the rapid transit network are well intentioned, but as currently configured will not extend higher-order transit service to several significant clusters of jobs in car-dependent office locations. Over the long-term, this will negatively affect the region’s competitiveness by exacerbating congestion, worsening air quality and consigning hundreds of thousands of office workers to lengthy and unproductive commutes by automobile. Interviewees also noted the need to dramatically improve the physical environment within these office clusters, which are characterized by long, unsheltered walks between buildings and the lack of shops and restaurants. Transforming such areas into pedestrian-friendly work environments will require a new approach to land-use decision-making as well as a commitment to extend rapid transit to these clusters.

With respect to the millions of square feet of office space that would remain unconnected from higher order transit under current plans, interviewees typically felt that transit dollars should be spent in a way that would better promote the long-term competitiveness of the GTA. To some that meant subways, while to others it meant connecting LRT lines to suburban clusters. “We should review the Big Move to ensure that value for dollars spent is maximized,” one interviewee suggested.

6. Recommendations: Supporting Competitiveness in the GTA

The study makes the following recommendations aimed at facilitating a more competitive environment for GTA office employment across all four submarkets defined in the report, and the development sector that supports it.

General Recommendations Related to the Region's Competitiveness

The GTA enjoys a solid reputation in North America and elsewhere as a well-run, asset-rich commercial hub, and has grown to become Canada's largest and most diverse concentration of high quality office space. There is also evidence of a growing commitment within the development community to construct "green" office buildings on a significant scale. Over time this trend should enhance the region's reputation abroad as an attractive place to invest. But these efforts will fall short of the mark if the momentum of future growth continues to be in locations completely dependent on car access. Current initiatives intended to mitigate congestion and improve mobility within the region by expanding the rapid transit network are well intentioned, but as currently configured will not extend higher-order transit to all the major clusters of jobs in car-dependent office locations. Over the long-term, this omission will negatively affect the region's competitiveness by exacerbating congestion, worsening air quality and consigning hundreds of thousands of office workers to lengthy commutes by automobile.

The provincial Places to Grow legislation has provided a much needed focus on higher-intensity, compact, mixed-use development in the Greater Golden Horseshoe, and in particular, clear direction for the future development of the Greater Toronto Area. A shortcoming of the present plans is that even after build-out of the planned rapid transit network expansion, about 98 million ft^2 of office development will still be beyond the reach of higher order transit.

In 2005, the City and province both recognized the problems with the current realty taxation system. Since then, both governments have been taking steps to address them, but progress has been slow and limited.

1. The gap between high commercial realty taxes and low residential tax rates in the City of Toronto must be narrowed. The City recognized this in 2005 and has begun the process. This process should be accelerated.
2. Tax and land use policy must recognize that office jobs are the *only* form of high density employment, representing more than one third of all jobs (estimated at 1 million jobs) in the region. Steps need to be taken to modify public policy to create a competitive environment for office development in all four sub-markets identified in this report.
3. The Growth Plan should be amended to recognize that significant concentrations of office space exist outside of the designated Growth Centres, and need to be integrated into the strategy for creating Growth Centres.
4. The province should work with local municipalities in the GTA to adjust priorities and fine tune the planned roll-out of rapid transit projects to better connect 108 million square feet of office space that is currently dependent on automobile access.

5. The province should create the legislation necessary to require binding commitments for transit-supportive development along transportation corridors in advance of transit construction.

Protecting and Enhancing the Primacy of Toronto's Financial Core

Downtown Toronto, and in particular, the area that encompasses the high value commercial office towers of the financial core, provides essential services and amenities to firms in the Financial Services sector and associated businesses. The businesses in the financial core are constrained by the limited availability of space for new office development, caused by the conversion of sites to residential use. As well, there is a very limited supply of available development sites for office uses. A further constraint on growth in this area is that the timeframe for development approvals is seriously out of synch with the business cycle, which forces companies to consider relocating to the suburbs.

It is critical to acknowledge the importance that the financial services sector plays with respect to the long-term prosperity of the region, as there are many examples in other centres across the world that have experienced serious impacts as a result of over-reliance on a single source of employment and wealth creation.

6. The City of Toronto, supported by the Province of Ontario, should explicitly acknowledge the primacy and key role played by the Financial Core beyond statements in the Official Plan and take the steps to identify and designate, through new zoning and other planning initiatives, office building development sites to ensure an adequate long-term supply of high quality, transit-oriented sites for future development.
7. The City of Toronto and the province should work to accelerate the progress towards balancing the commercial tax burden and making commercial property taxes more competitive in Toronto's commercial sector.
8. The City of Toronto is at present heavily dependent on a single major employment sector - financial services. It is paramount that steps be taken to enhance and foster the continued prosperity of this sector in order to ensure the economic health and future competitiveness of the region.

Reinforcing the Attractiveness of Toronto's Transit-Oriented Submarket

Some commercial concentrations on existing higher-order transit lines have remained stagnant for the past 20 years. Further growth in these areas is restrained by high cost and restrictive zoning regulations. New policies need to be developed to encourage development in these areas. The synergy between private-sector development interests and public investment in essential transportation infrastructure has been one of the hallmarks of success supporting growth of the office market in the GTA, particularly in the financial core and the City's transit-oriented submarket.

9. The City of Toronto should encourage high-intensity office development along the existing subway system by re-evaluating land use policy within a five-minute walk of subway stations and designating sites appropriate for office employment development.

10. Land use policy and the development approvals process for the creation of office buildings must acknowledge that the maximum time for employers to make a commitment to new facilities through to occupancy is three years.

Re-Evaluating Development Priorities in Toronto's Non-Transit Submarket

The commercial tax class applies uniformly to all existing office buildings in the City of Toronto, regardless of whether or not they are served by higher order transit; for buildings located in market clusters in proximity to the municipal borders, this places an unfair burden on both landlord and tenant in such buildings, because office buildings in the same cluster located on the other side of the municipal border benefit from considerably lower tax rates. An important negative effect of this condition is that it discourages landlords from investing in their properties, because they are forced to accept lower net rents in order to be competitive in the local market.

The viability of existing office buildings in Toronto's non-transit submarket is called into question when local conditions preclude the development of new office buildings – a market that does not grow risks atrophy. There has been no new growth to speak of in this submarket for more than 25 years. A new approach is needed. The success of policy changes in the "Brick and Beam" district offers a precedent for revitalizing stagnant employment areas in the city. Acknowledging that tax disparities are an economic reality for the foreseeable future, efforts should be made to enhance the value proposition for existing landlords and tenants as well as to attract new investment.

11. Relying on the successful precedent in "the Kings" (otherwise known as the "Brick and Beam" districts either side of the financial core), the City of Toronto should focus on creating better value for existing and new investors by planning for a variety of new, high-intensity, multi-function uses in the Toronto non-transit submarket compatible with existing office buildings which take advantage of existing or proposed infrastructure investments.
12. As part of the upcoming Official Plan Review, the City of Toronto should consider expanding the range of permitted uses in selected employment areas while increasing opportunities for office development in others.
13. The City of Toronto should recognize that prime development land currently being absorbed by residential condominium builders must be balanced by a similar designation for office building intensification in corridors where future higher-order transit is planned.

Consolidating the Strengths and Reinforcing the Long-Term Viability of Suburban Car-Dependent Office Clusters

This report has described how the rapid growth of office clusters near the 400-series and other major highways has created important new commercial assets, but reinforced car dependence and led to unacceptably high levels of traffic congestion in the suburbs. Recognizing that there are a number of office clusters with significant intensification potential in suburban areas of the GTA, and acknowledging that further sprawl in the office market is not in the public interest, the province should integrate these clusters with its regional development plans.

Office parks that provide for only office employment, and neglect the demand for a range of retailing, services and amenities which exist in urban areas, will remain auto-dependent and *become increasingly less competitive as congestion in suburban locations worsens. Moreover, new office development in isolated suburban areas, away from existing clusters with further development potential will encourage further employment sprawl.*

14. Working collaboratively with affected municipalities, the Province of Ontario should amend its Provincial Policy Statement (currently under review) to preclude the development of additional suburban office sites that do not fall within existing “suburban office nodes.”
15. In the spirit of intensification advocated in the provincial Growth Plan, suburban municipalities should work to actively expand the range of uses and functions permitted in suburban office nodes in order to improve their "functionality" and develop an environment more conducive to pedestrian activity and transit use.

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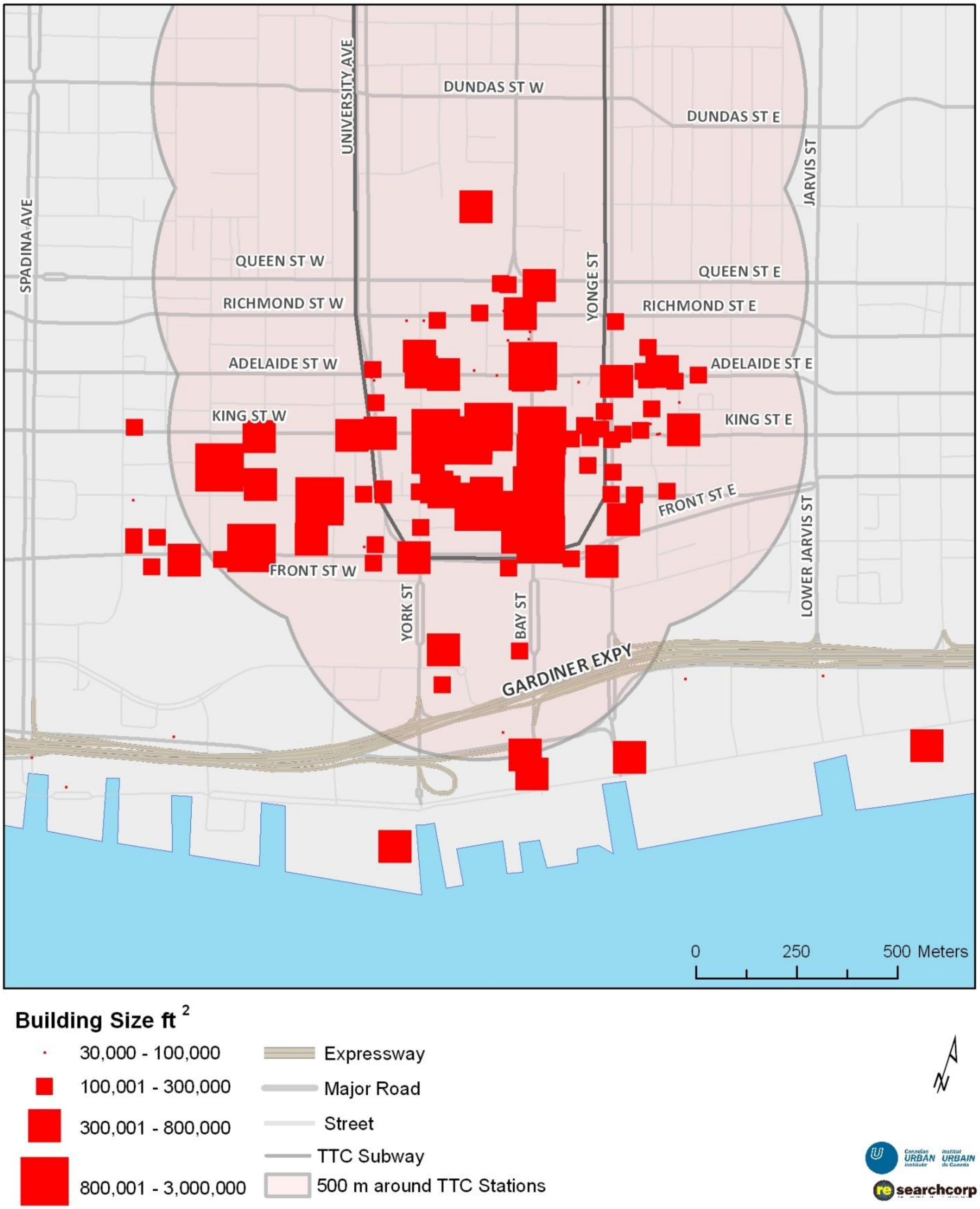
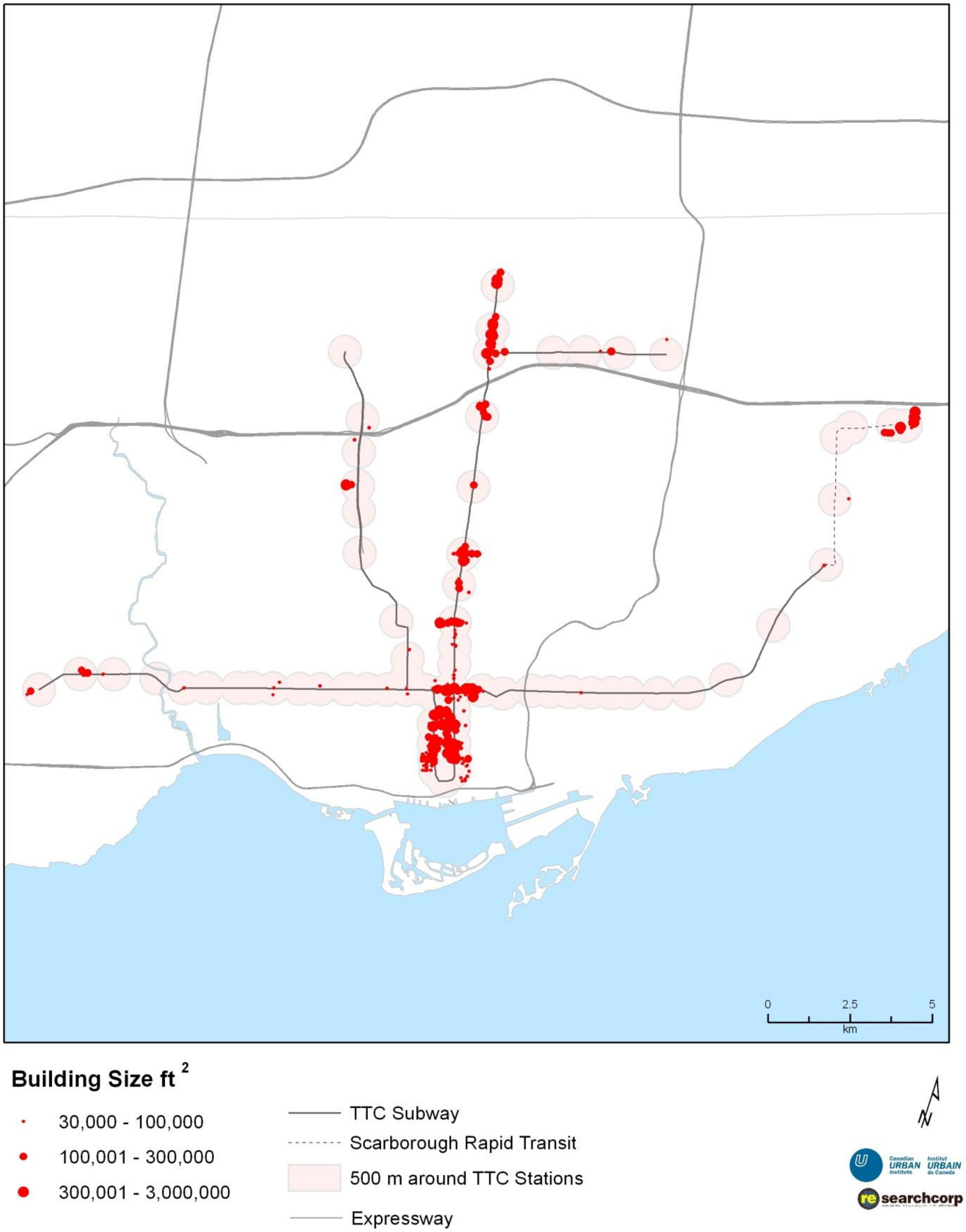
Appendix 1: Large Format Maps

Office Space in the Financial Core



Toronto Transit-Oriented Submarket



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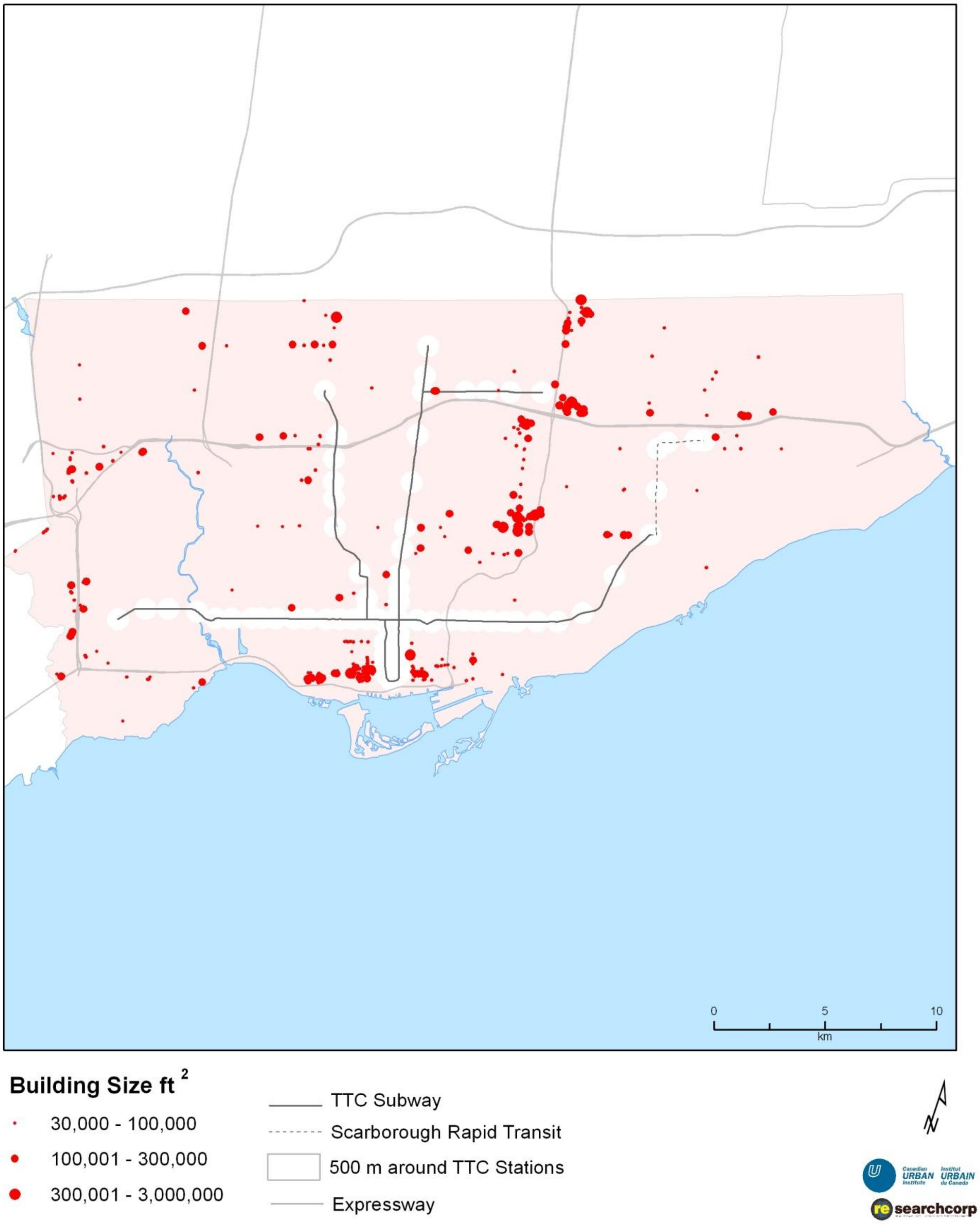
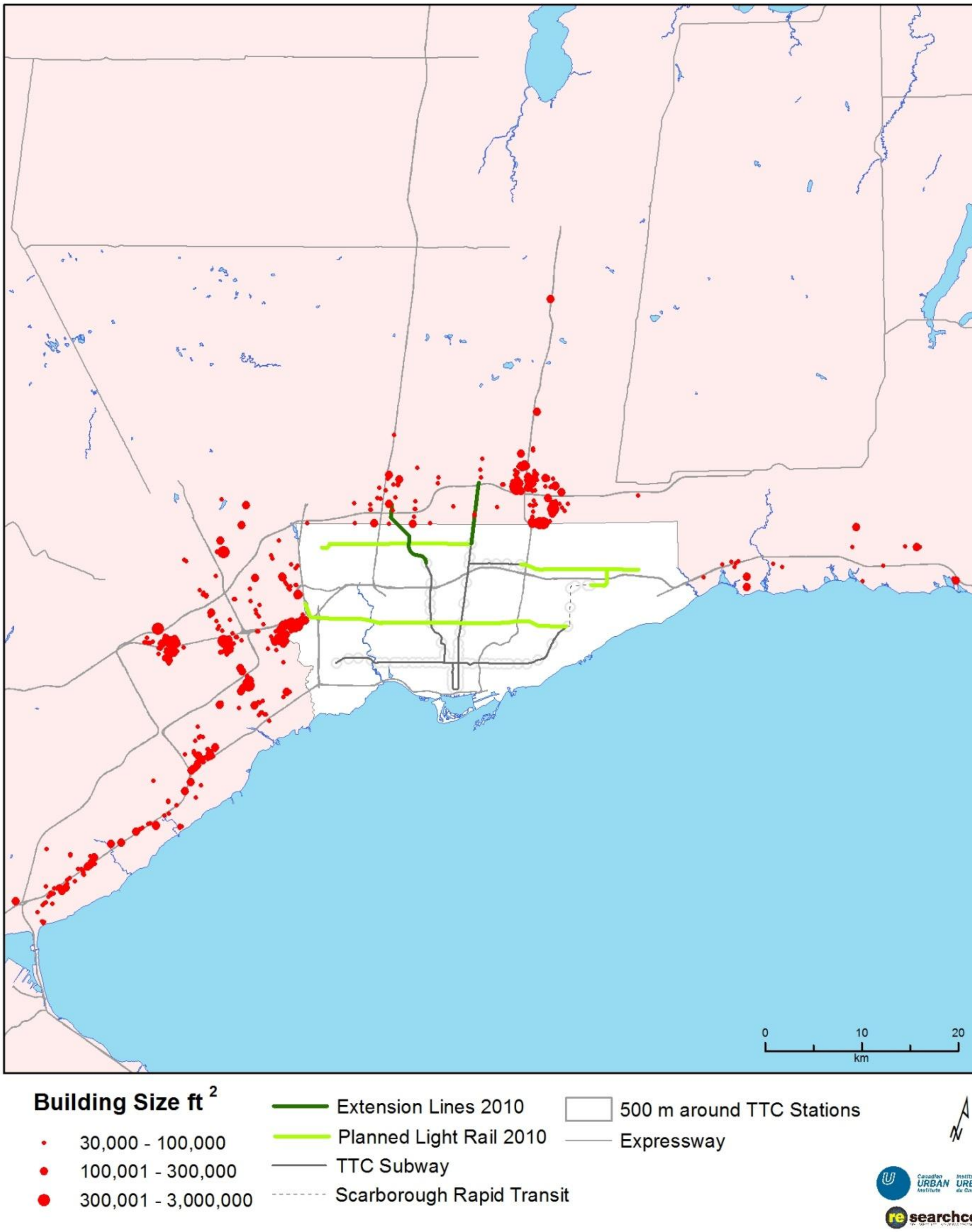
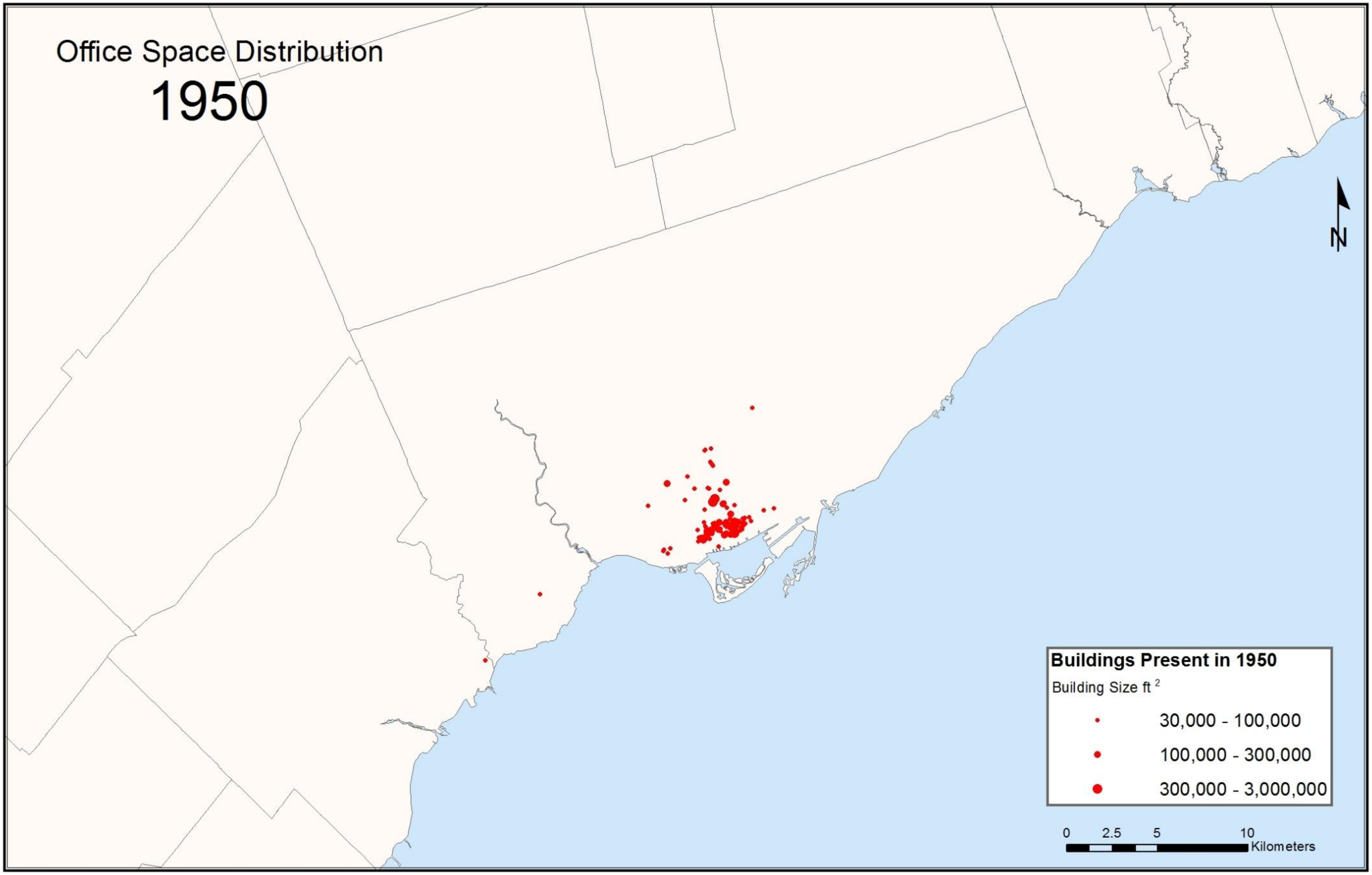
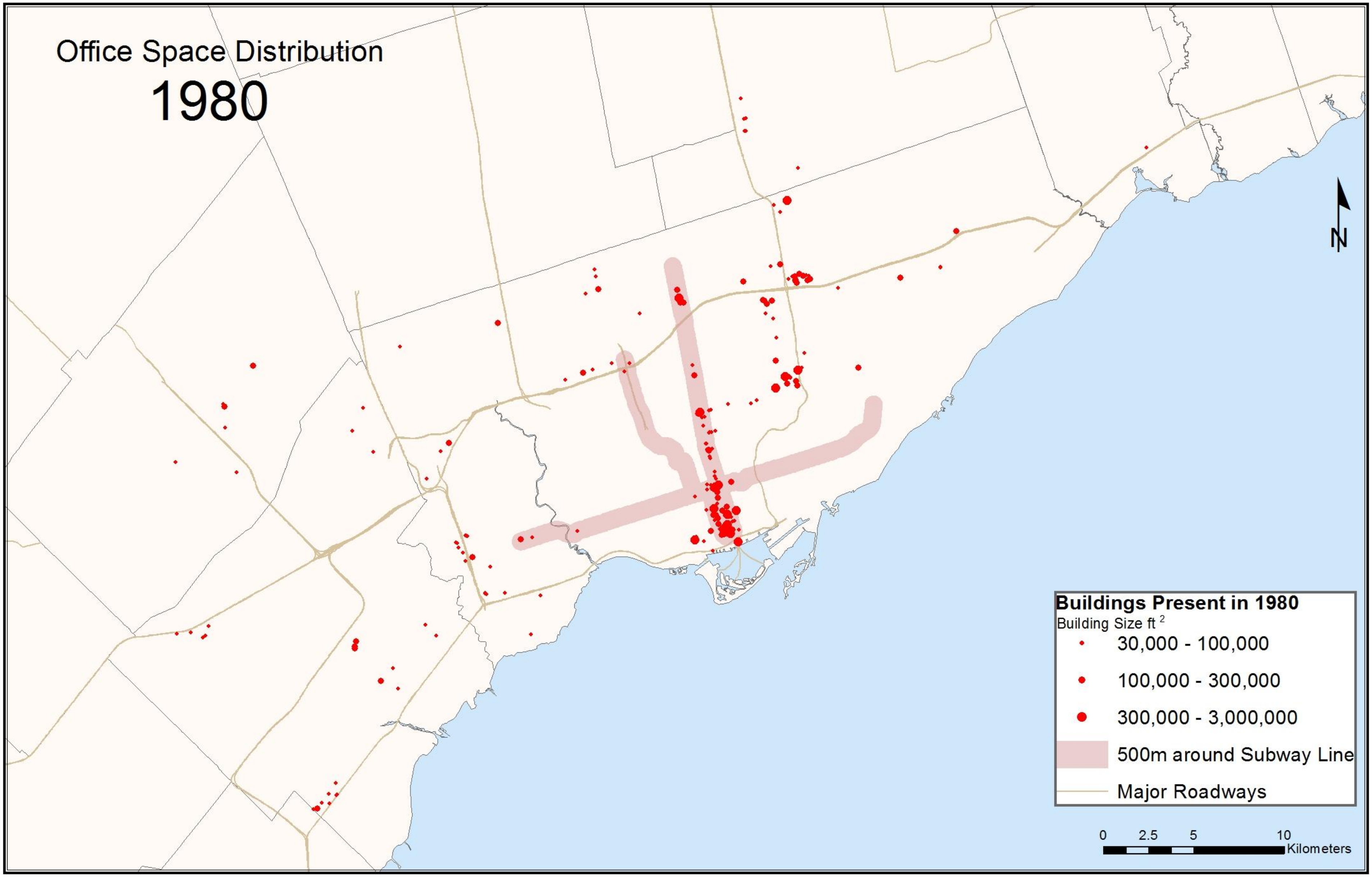
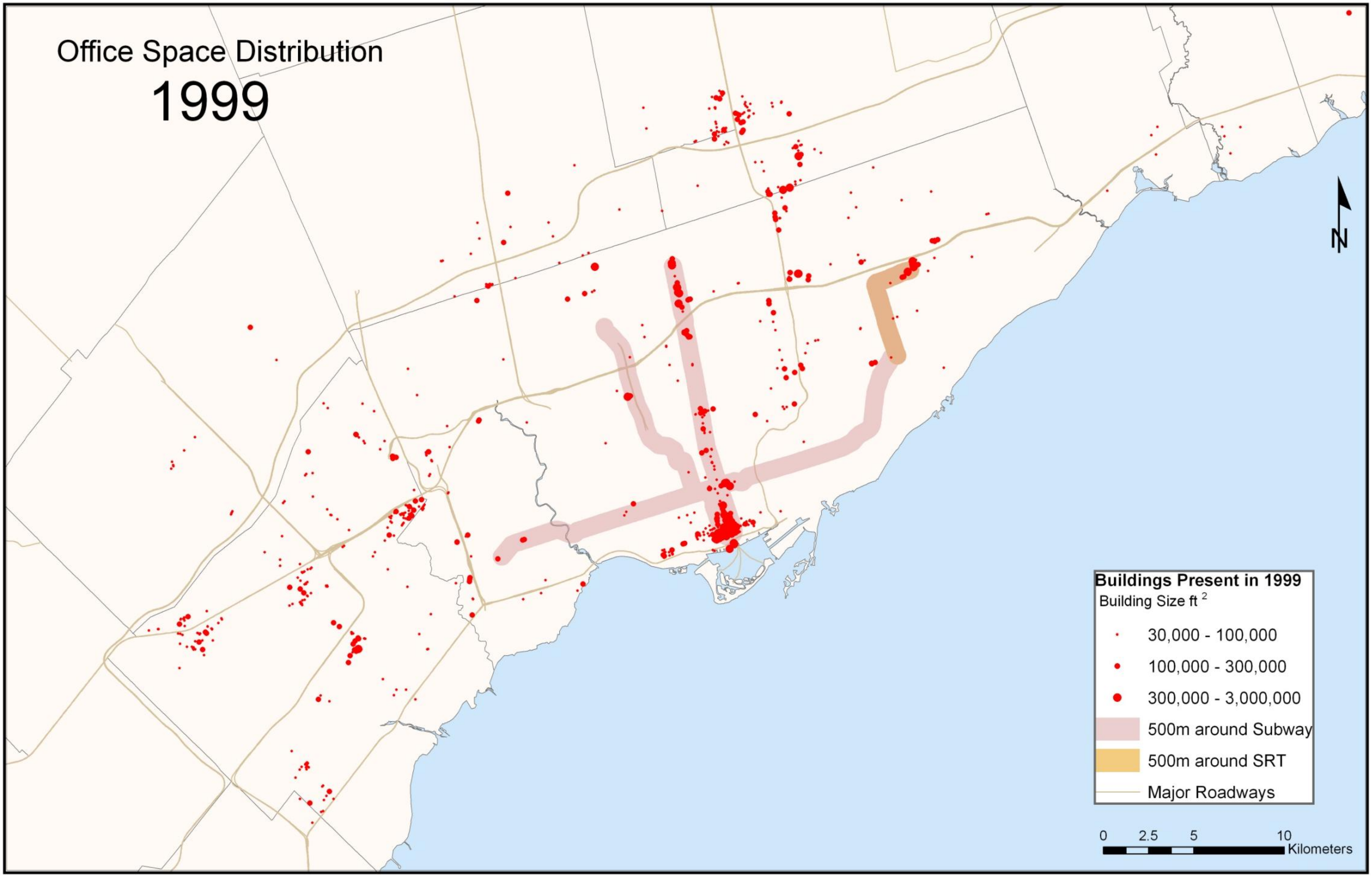


The Suburban Municipalities - the 905




Office Space Distribution
1950
Buildings Present in 1950
Building Size ft 2
30,000 - 100,000
100,000 - 300,000
300,000 - 3,000,000
0 2.5 5 10
Kilometers
N


Office Space Distribution
1980
Buildings Present in 1980
Building Size ft 2
30,000 - 100,000
100,000 - 300,000
300,000 - 3,000,000
500m around Subway Line
Major Roadways
0
2.5
5
10
Kilometers
N


Office Space Distribution
1999
Buildings Present in 1999
Building Size ft 2
30,000 - 100,000
100,000 - 300,000
300,000 - 3,000,000
500m around Subway
500m around SRT
Major Roadways
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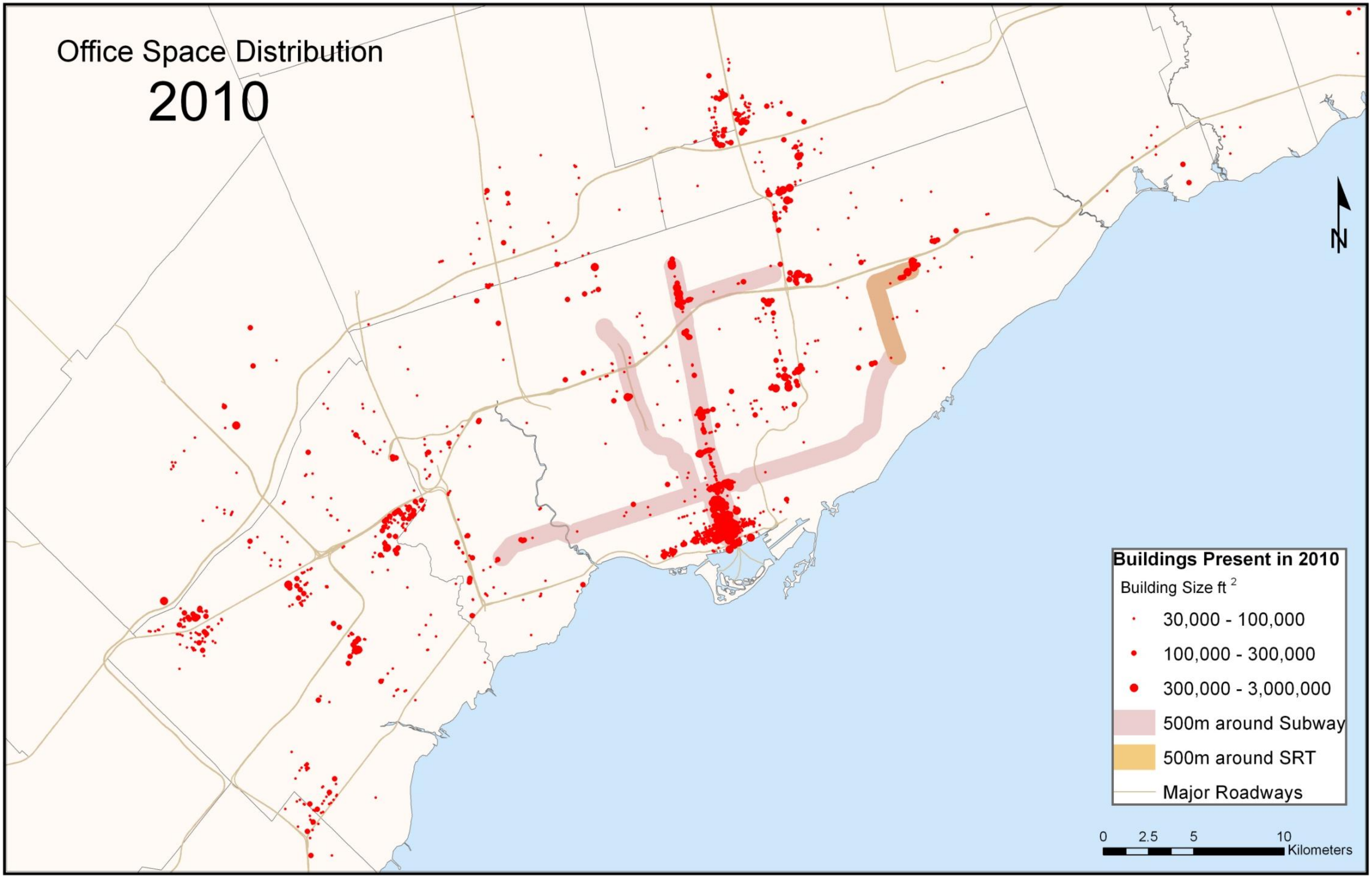
5
10
Kilometers
N


Office Space Distribution
2010
Buildings Present in 2010
Building Size ft 2
30,000 - 100,000
100,000 - 300,000
300,000 - 3,000,000
500m around Subway
500m around SRT
Major Roadways
N
0
2.5
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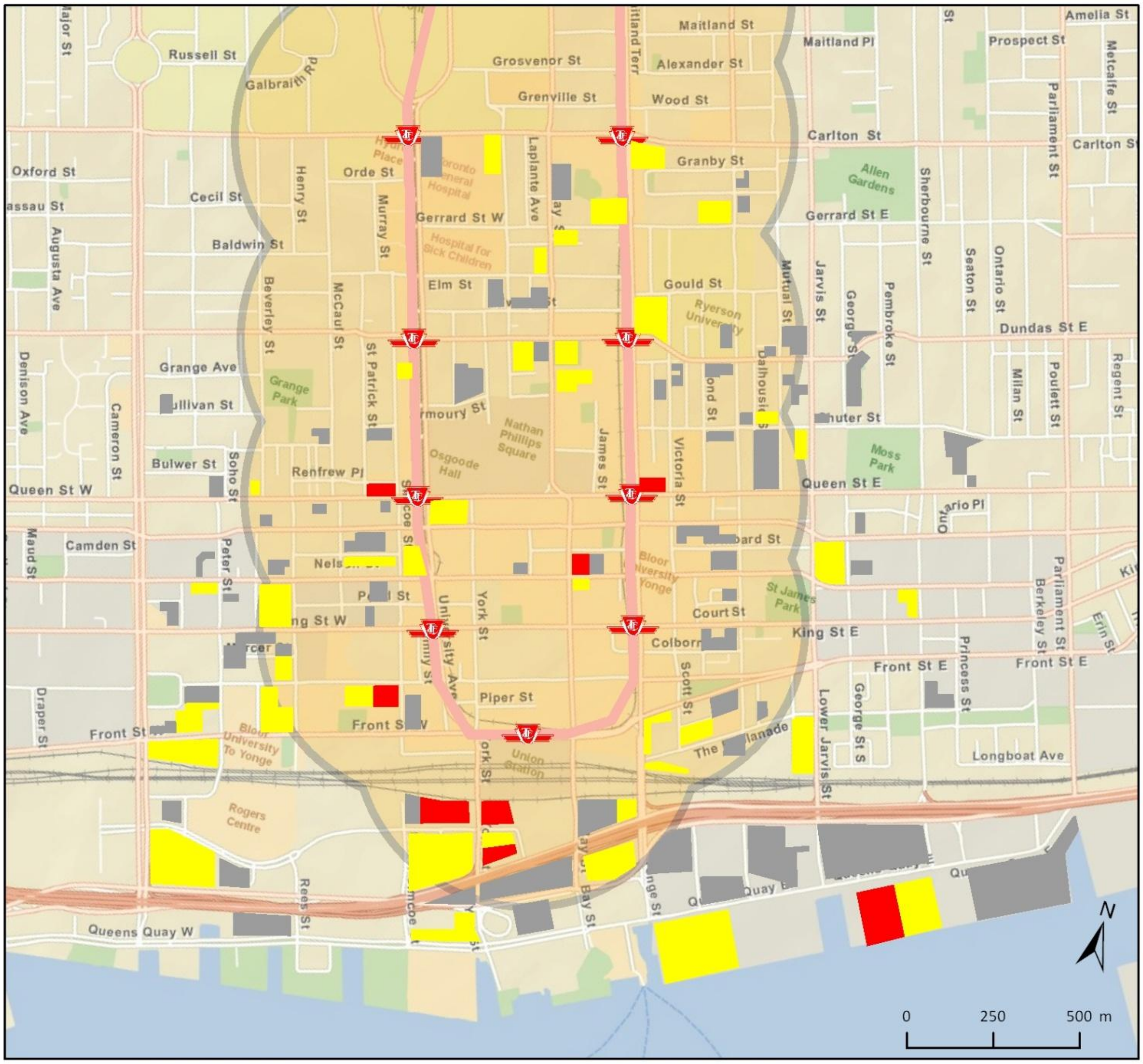
Kilometers

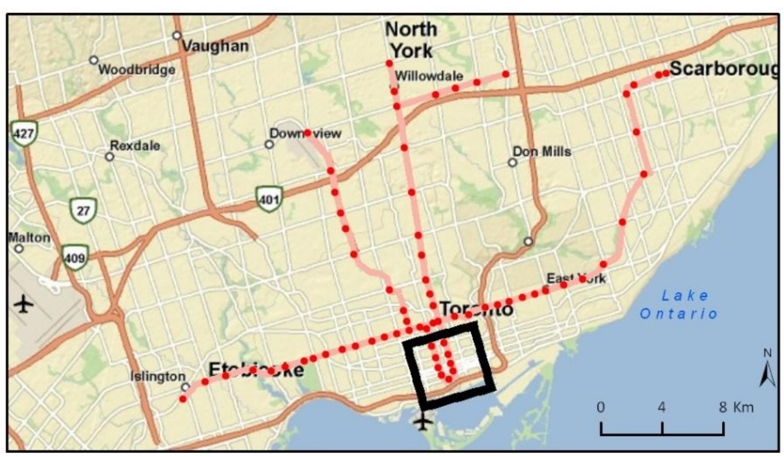
Downtown Toronto Block Redevelopment 2002-2010



Development Status

- Office Built or Under Construction
- Non Office Built or Under Construction
- Potential Development Sites
- TTC Subway Stations
- TTC Subway Route
- 500 m around TTC Stations

Data source: Real Estate Re-Search Corportation & Canadian Urban Institute.
Background image: Google Earth & Bing Maps.
Created: Nov 25, 2010.



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