Fitting the **Knowledge Economy** Jigsaw Piece for Belleville, Ontario | Benchmarking Performance with Canadian Cities and Underpinning the Role of Downtown

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Acknowledgements

I would first like to thank my report supervisor and Queen’s University School of Urban and Regional Planning professor, Dr. Leela Viswanathan, for her guidance, professionalism and dedication to this report's success. I would also like to thank my School’s director, Dr. David Gordon, for taking the time to listen to my ideas and helping develop the methodology for this report. Another individual I would like to thank is Dr. Betsy Donald, professor of the Queen’s University Department of Geography. Her Creative Economies course was a great source of inspiration and helped develop my passion about how urban planning is unfolding in the knowledge economy. Next, I would like to thank Janet Harnden, a Belleville Downtown Improvement Area Board Member, for her consideration and for providing me with key planning documents that formed the backbone of this report. Lastly, thank you to everyone at the School of Urban and Regional Planning and to all of the great people I have met and been inspired by at Queen’s in general; may this report reflect how much this experience has helped me learn and grow over these two years.
Executive Summary

The research question of this report is, how can Belleville, Ontario develop a role in the knowledge economy? A thorough review of Belleville’s city planning documents found no evidence that Belleville’s role is defined for the knowledge economy, highlighting the rationale for this report. It is debated that capitalism goes through distinct phases, and the ascendency of the knowledge economy implicates a transformation of the structures, principles and mechanisms that underpin capitalist development (Amin, 1995; Macleod & Goodwin, 1999). What is truly defining capitalism of today is how knowledge and learning create economic wealth (Gertler, 2001). Inherently, just as Fordism required Americanism to spur the post-war boom, there is the need to embed the knowledge economy in a knowledge society or a society with a reciprocal institutional ensemble (laws, rules), cultural norms and social relationships (Harvey, 1989; Amin, 1995). In the industrial age, the corporation was the organizing unit of economic growth (Florida, Mellander, & Adler, 2010). In the knowledge economy, the knowledge worker owns the means of production and it is on the urban scale “that the productive capacities of territorial organizations are mobilized” (Brenner, 1999, p. 446). These ideals raise major economic and social policy questions, and have major implications for how to plan our cities. In effect, urban planners provide the tools to facilitate capitalist accumulation, with power to shape the social qualities and properties of urban places.

Belleville, Ontario is a smaller Canadian city that by location, by built form, and with regard to the current planning context is a city of potential in the knowledge economy. Unfortunately, Belleville’s downtown has experienced serious decline as a result of suburban growth; however, current environmental and economic development thinking are creating a climate for downtown revitalization (Filion, Hoernig, Bunting & Sands, 2004). A leading method about urban development in the knowledge economy is Richard Florida’s creative class approach. Florida’s thesis of the creative class approach is that “in the post-industrial era, successful regional economies need to cultivate an ecosystem incorporating high levels of talent, high technology industry concentration, low barriers to entry for talent, and high degrees of social heterogeneity (or tolerance)” (Florida et al., 2010, pp. 2-3). A place can be evaluated for its “fit” to the creative class using a number of performance indices based on these 3Ts of economic development; however, the 3Ts of economic development indices produce dichotomous results by city size. Since the scale of a city-region is generally a competitive advantage in the knowledge economy, the indices produce results that essentially categorize larger cities as winners and smaller cities as losers (Donald & Morrow, 2003). In response, Lewis and Donald (2010), in their work: “A New Rubric for Creative City Potential in Canada’s Smaller Cities,” proposed a new model that will highlight the strengths of smaller Canadian cities. Their alternate path begins with a vision focusing on “quality of life,” specifically livability and sustainability (rather than talent, technology, and tolerance). Lewis and Donald (2010) presented seven measurable indicators of city performance with their new quality of life themed model.
This study conducted a performance analysis of Belleville, Ontario relative to nine other Canadian cities, as measured by four of Richard Florida’s 3Ts of economic development indicators and six indicators of Lewis and Donald’s (2010) model, which for this report is termed the “quality of life” model. The information for this study is secondary source and based on two sources of evidence. A few chapters should be elaborated on for their sourcing. The information of Chapter 1 is documentary information and is the product of an extensive literature review. Chapter 2’s background information on Belleville is also documentary information and is both the product of an extensive literature review and also uses planning documents that were obtained directly from the Belleville Downtown Improvement Area (See RFA Planning Consultant Inc., 2010; Office for Urbanism, 2006). The primary source of evidence for “Chapter 4: Results” is archival records, which is the data for the performance analysis. This constitutes the data based upon Lewis and Donald’s quality of life model that is from Statistics Canada’s 2006 Census and the 3Ts of economic development data that is from the Martin Prosperity Institute of the University of Toronto. The non-scientific nature of the study’s methodology could not lead to an unequivocal conclusion about what model best fits the community. Nonetheless, the report benchmarks Belleville’s relative performance and identifies Belleville’s relative developmental strengths and weaknesses. In benchmarking Belleville’s relative performance on the economic development indicators, its character was found to be similar to other smaller Canadian cities and distinct from larger urban centres. There were several implications of the results, which revolved around that Belleville should in no way attempt to simulate values, but should be adopting its own development model: one that works to attract creative capital and also builds on the distinct advantage of quality of life. The latter was expressed through the notion for small city solutions to big city problems.

Notable enough that it merited its own section in this report, downtown Belleville was argued on several dimensions as a key resource for Belleville to improve its attraction and retention power of knowledge workers and knowledge-based firms and improve overall quality of life. Downtown Belleville has an award-winning master plan that was adopted by city council in 2006, but subsequently shelved. In response, RFA Planning Consultant Inc. (RFA) was retained by the Belleville Downtown Improvement Area (BDIA) to review and synthesize the master plan’s recommendations. On November 10, 2010 RFA presented a document to the Mayor’s Downtown Task Force on behalf of the BDIA that is built around four downtown development themes to empower downtown planning. The themes are: Downtown as an Attraction, Downtown as 8 - 80 District, Downtown as Residential Area, and Downtown as Employment Centre. This section examined Belleville’s downtown through these themes and rationalized these themes for their relevance in the knowledge economy. Of particular emphasis was that the civic infrastructure of downtown is of an urban character that could attract and retain knowledge workers and facilitate economic growth for knowledge-based firms. However, it was also acknowledged that there is a hierarchy of needs involved in the regeneration of a downtown and that built form is only one of many important considerations. Future research and action to develop Belleville’s role in the knowledge economy will be to further articulate and operationalize a distinct development model for downtown Belleville. While this should be encouraged, it should be carefully directed. Urban creativity strategies have been highly contagious over the past decade, but some have been poorly planned out - putting a knife-edge between regeneration
and decline. Interview(s) could have been a source of evidence to validate and enhance the reliability of the report’s findings. However, due to trouble coordinating deadlines interviews were not conducted.
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List of Abbreviations

3Ts  Talent, Technology, Tolerance  
BDIA  Belleville Downtown Improvement Area  
CA  Census Agglomeration  
CMA  Census Metropolitan Area  
CRINK (economy)  Creative, Innovative, Knowledge-based  
ESL  English as a Second Language  
LRP  Light-based Regional Product  
RFA  RFA Planning Consultant Inc.

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1 Introduction

1.1 Purpose of the Report

The research question of this report is, how can Belleville, Ontario develop a role in the knowledge economy? A thorough review of Belleville's city planning documents found no evidence that Belleville's role is defined for the knowledge economy, highlighting the rationale for this study. “Fitting the jigsaw piece” is the purpose of the study, and it is about building a link between Belleville and its success in the knowledge economy. Chapter 1 builds a theoretical framework that incorporates an overview of the Canadian knowledge economy, the nature and phases of capitalism, and the role of globalization. This is necessary to demonstrate the rationale of planning for the knowledge economy. Chapter 2 documents background information on the city of Belleville, Ontario, its downtown, and an overview of the circumstances that have led to the current planning context for the downtown. Chapter 3 describes the report's methodology. This chapter details the research design and the limitations of the study. Chapter 4 provides the results of this study, which is Belleville’s performance relative to nine other Canadian cities using economic development indicators. This chapter compares these results by city size, and benchmarks Belleville’s relative performance. Chapter 5 analyzes the results of this study and their implications for Belleville. As well, this chapter is about underpinning the role of downtown as a means to increase knowledge worker attraction-retention power and improve overall quality of life. Chapter 6 concludes the study, summarizes the study's findings, and offers next steps for research and planning.
1.2 The Knowledge Economy

The new economy is driven by creativity, knowledge and innovation (OCRI, 2010). In this report, the new economy is referred to as the knowledge economy, but creative economy, learning economy or CRINK economy (CReative, INnovative, Knowledge-based) have each been used synonymously (Baeker, 2010; Gertler, 2001). “Knowledge is now recognised as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance” (OECD, 1996, p. 3).

Baldwin and Beckstead (2003) define knowledge workers through three broad occupational streams:

- **Professional occupations**—characterized by high relative wages and a high proportion of persons who have completed university-level education;
- **Management occupations**—characterized by high relative wages but with a lower proportion of persons who have completed university-level education; and,
- **Technical occupations**—characterized by lower relative wage rates and a high proportion of persons with post-secondary education or above.

(Note: see Appendix A, Figure A-1 for the full list of knowledge workers by occupational stream)

Baldwin and Beckstead’s (2003) analytical paper was published by Statistics Canada and it tracked the change of how the Canadian economy has become more knowledge-intensive from 1971 to 2001. Baldwin and Beckstead (2003) made several key findings: there has been an increase, at least to some extent, of the proportion of knowledge workers in all sectors of the Canadian economy (*the pace of this change has been relatively constant from 1971 to 2001*); knowledge workers have higher levels of education and increasingly possess a university degree; knowledge workers receive higher income and the gap in income between knowledge-based occupations and other occupations has remained relatively stable from 1971 to 2001; knowledge intensive work is found most in the public sector, but increases have been greatest in the business sectors from 1971 to 2001. **Table 1-1** is Canada’s employed labour force by occupation from 1971 to 2001. It highlights increases in knowledge-based occupations as a total...
share of employment over this period. **Table 1-2** is Canada’s knowledge intensity by industry in the business sector from 1971 to 2001. It highlights increases in knowledge intensity across different industries in the business sector.

**Table 1-1. Canada, Employed Labour Force by Occupation, 1971-2001**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share of Employment* (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All knowledge-based occupations</strong></td>
<td></td>
</tr>
<tr>
<td>Management occupations</td>
<td>13.8</td>
</tr>
<tr>
<td>Professional occupations</td>
<td>1.6</td>
</tr>
<tr>
<td>Technical occupations</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>All other occupations</strong></td>
<td>86.2</td>
</tr>
<tr>
<td><strong>All occupations</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

*Defined as the employed labour force using the 1971 Census labour force concept. (Source: Baldwin & Beckstead, 2003, p. 5)

**Table 1-2. Canada, Knowledge Intensity* by Industry in the Business Sector, 1971-2001**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share of Employment** (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry, Fishing and Hunting</td>
<td>1.3</td>
</tr>
<tr>
<td>Mining, Quarrying, Oil and Gas</td>
<td>13.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.9</td>
</tr>
<tr>
<td>Construction</td>
<td>4.6</td>
</tr>
<tr>
<td>Transportation and Storage</td>
<td>7.1</td>
</tr>
<tr>
<td>Communication and Other Utility</td>
<td>13.8</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>6.5</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>3.2</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>19.5</td>
</tr>
<tr>
<td>Real Estate Operator and Insurance Agent</td>
<td>6.9</td>
</tr>
<tr>
<td>Business Service</td>
<td>40.6</td>
</tr>
<tr>
<td>Accommodation, Food and Beverage Services</td>
<td>1.2</td>
</tr>
<tr>
<td>Other Services</td>
<td>6.4</td>
</tr>
</tbody>
</table>

* Knowledge intensity is measured as the employment share of knowledge-based occupations.
** Includes only the employed labour force defined using the 1971 Census labour force concept. (Source: Baldwin & Beckstead, 2003, p. 10)
The emergence of the knowledge economy raises major economic and social policy questions, and has major implications for how we should be planning our cities.

In general terms, a knowledge economy requires a knowledge society. It is a paradox of capitalism, “between its inherent tendency towards instability, crisis and change, and its ability to coalesce and stabilize around a set of institutions, rules and norms, which serve to secure a relatively long period of economic stability” (Amin, 1995, p. 7). To use an analogy, it took nearly half a century to connect the Fordist system of mass production with a society built on the institutional ensemble (laws, rules), cultural norms and social relationships that would allow Fordism to prosper (Harvey, 1989; Amin, 1995). The struggle was not unique to Fordism, but is the nature of capitalism (Amin, 1995). In theory, the key to the reproduction of capital is in reconciling the tenuous relationship between the regime of accumulation and the mode of regulation (Amin, 1995). The result is a geographic expression of capitalist production or what David Harvey termed the “spatial fix”: which is “what values and ideas look like when you turn them into bricks and mortar” (Florida, 2009a, p. xvii). In the Fordist era, suburbanization was the spatial fix (Florida, 2009a). The Fordist postwar boom had a potent centrifugal influence on the shape and extent of the city (Gertler, 2001). In fact, as a result of the widespread proliferation of the Internet and long-term improvements in transport and communication technology there was a general idea that the economy and the city would become unrelated (Johnston, Gregory, Pratt, & Watts, 2000; Gertler, 2001). Thomas Friedman’s focus in his famous work The World is Flat, concerned the centrifugal force of globalization as driving this trend: the time-space compression effect (Brenner, 1999; Florida, 2009). Friedman neglected the centripetal force, “the continual production and reconfiguration of relatively fixed spatial configurations” (Brenner, 1999, p. 435; Florida, 2009). It is this dialectical interplay between the

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1 “The regime of accumulation refers to a `set of regularities at the level of the whole economy, enabling a more or less coherent process of capital accumulation`. It includes norms pertaining to the organization of production and work (the labour process), relationships and forms of exchange between branches of the economy, common rules of industrial and commercial management, principles of income sharing between wages, profits and taxes, norms of consumption and patterns of demand in the marketplace, and other aspects of the macroeconomy” (Amin, 1995, p. 8).

2 “The mode of regulation refers to the `institutional ensemble (laws, agreements, etc.) and the complex of cultural habits and norms which secures capitalist production as such. It consists of a set of ‘formal or informal ‘rules that codify the main social relationships.’ It therefore refers to institutions and conventions which ‘regulate’ and reproduce a given accumulation regime through application across a wide range of areas, including the law, state policy, political practices, industrial codes, governance philosophies, rules of negotiation and bargaining, cultures of consumption and social expectations” (Amin, 1995, p.8).
counteracting forces that is constructing today’s urban morphology. In the knowledge economy, the role of location is actually enhanced and it is on the urban scale “that the productive capacities of territorial organizations are mobilized” (Brenner, 1999, p. 446; Gertler, 2001; Florida, 2009). Urban city environments are the spatial fix of the knowledge economy. As stated in Canada’s Globe and Mail: “Canada’s economic future depends on the strength of its cities. And in today’s global economy, it’s cities – not countries – that are competing for talent and investment on a global stage” (Wilding & Hillier, 2011). During the Fordist post-war boom, the corporation was the organizing unit of economic growth (Florida et al., 2010). In the knowledge economy, the knowledge worker owns the means of production. Economic value is no longer in the firm, now it is in the people and the city is the growth machine. To adapt, cities require regulatory changes to accommodate what could be termed the “forces and flows” (e.g. globalization, immigration) of the knowledge economy. It is a cities propensity to accommodate these “forces and flows” that is integral to economic growth. In effect, urban planners provide the tools to facilitate capitalist accumulation, with power to shape the social qualities and properties of urban places. Urban policy is now economic policy (Stolarick, 2010). The question is then, when workers no longer collect in areas of natural resources and are not confined to organize around corporations, how do you attract and retain them? This sets the stage for Richard Florida’s creative class approach.

1.3 The Creative Class Approach

If anyone, it is Richard Florida who embodies the concept of the geography of talent and the rationale that it is place that is organizing the flow of talent. Florida’s (2002) Rise of the Creative Class had a transformative effect because it situated place at the very centre of regional development. He dubbed the theory a creative class<sup>3</sup> approach and his thesis was that “in the post-industrial era, successful regional economies need to cultivate an ecosystem incorporating high levels of talent, high technology industry concentration, low barriers to entry for talent, and high degrees of social heterogeneity (or tolerance)” (Florida et al., 2010, p. 3).

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<sup>3</sup> Florida refers to knowledge workers as the “creative class” of workers.
Florida articulates the creative class approach through these 3Ts of economic development. Talent and Technology are defined as highly mobile flows. The key to realizing these flows is openness to human capital or openness to people (i.e. Tolerance) (Florida et al., 2010). In other words, a quality of place is what is dictating the current geography of urban-regional agglomerations. The implication of place, is that it suspends the idea that workers “go where the jobs” are:

The 3Ts theory assumes that firms, which rely on skilled labor, will have to trade inefficiencies in other areas for access to human capital. For instance, they might locate in places that have higher taxes if those places also provide access to a skilled labor force. As economic units that rely on income, skilled labor must likewise consider the availability of jobs when they make their location decisions. Each of talent, technology and tolerance are necessary but not sufficient conditions of place. Economic growth occurs in regions with substantial levels of all three (Florida et al., 2010, p. 11).

For an in-depth explanation of the 3T’s of economic development see “Ontario Competes,” referenced as Martin Prosperity Institute, 2009a.

Figure 1-1 illustrates the conditions of a place that attracts the creative class and high or modern technology industry: “this creative class seeks places that have well-developed quality-of-life amenities such as arts and entertainment, a deep labour market, and a culture characterized by vitality, diversity and tolerance” (Donald & Morrow, 2003, p. ii). Florida says a city needs a business climate and a people climate (Donald & Morrow, 2003).

<table>
<thead>
<tr>
<th>TALENT CENTRE CONDITIONS</th>
<th>TALENT CENRE INPUTS</th>
</tr>
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<tbody>
<tr>
<td>• natural</td>
<td>amenities</td>
</tr>
<tr>
<td>• recreational</td>
<td></td>
</tr>
<tr>
<td>• lifestyle</td>
<td></td>
</tr>
<tr>
<td>• arts and entertainment</td>
<td></td>
</tr>
<tr>
<td>• abundance of opportunities</td>
<td>thick labour market</td>
</tr>
<tr>
<td>• tolerance and diversity</td>
<td></td>
</tr>
<tr>
<td>• cultural vitality</td>
<td>culture</td>
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Figure 1-1. Florida’s Talent Model
(Source: Donald & Morrow, 2003, p. ii)
A place can be evaluated for its “fit” to the creative class, by a number of performance indicators based on the 3Ts of economic development. Florida and his colleagues employ indicators such as the Tech Pole Index, Gay and Lesbian Index, Talent Index or Bohemian Index to identify these factors and to benchmark relative performance from city to city. For instance, the Gay and Lesbian Index is a measure of the share of a region’s same sex marriages relative to the North American average, but an indicator of the tolerance or openness of a city to newcomers (Martin Prosperity Institute, 2009b, p. 18). Florida has been able to very effectively predict the geography of talent with this index (Gertler, 2001).

The creative class is defined based on what they are paid to do (Donald & Morrow, 2003). The creative class is distinct as they constitute, “non-routine occupations that require creative problem solving and/or the generation of new forms” (Florida et al., 2010, p.11). This is contrary to the working and service classes, who are paid to carry out routine or pre-designed functions (Donald & Morrow, 2003). Despite that the creative class is composed of only 24.7 percent of the share of employment in Canada (in 2001) they have much more of an effect economically: “In Ontario, occupations in the creative class have an average total income of $64,100 compared to an average of $42,600 for all other occupations” (Baldwin & Beckstead, 2003; Martin Prosperity Institute, 2009b, p. 7). Further, as the creative class is knowledge-based and owns the means of production they are not rooted to place as other occupations are, and are much more mobile (Donald & Morrow, 2003). It is said that an urban centre that is attractive to the creative class is more likely to be economically successful in the knowledge economy, while urban centres of the working class and service class are likely to be economically stagnant or in decline (Donald & Morrow, 2003).

1.4 Creative Class Critiques and a New Rubric for Smaller Cities

The creative class approach has not gone without criticism. On the surface, Florida’s model appears as a new socially tolerant capitalism; however, in practice, those who are not members of the creative class are marginalized (Whyte, 2009; Lewis & Donald,
Remembering the class struggle of Fordism, the creative class approach has been criticized as essentially a bourgeois societalization:

There is wide variation in how far capitalist market forces (and the associated logic of profit-seeking) come to dominate the overall organization and dynamics of social formations. This raises questions about the conditions under which accumulation can become the dominant principle of societal organization (or societalization). For there are always interstitial, residual, marginal, irrelevant, recalcitrant and plain contradictory elements that escape subordination to any given principle of societalization and, indeed, serve as reservoirs of flexibility and innovation as well as actual or potential sources of disorder. This implies in turn that there is ample scope for conflict over societal projects that privilege radically different organizational principles as well as for conflict over rival projects based on the same principle (Jessop, 2002, p. 52).

The 3Ts of economic development indicators also produce dichotomous results by city size. Since the scale of a city-region is generally a competitive advantage in the knowledge economy\(^4\), the indices produce results that essentially categorize larger cities as winners and smaller cities as losers (Donald & Morrow, 2003). However, Florida’s winner-loser dichotomy that marginalizes smaller cities is simply not true, as there is much potential for smaller cities to attract and support the creative class. Instead, smaller cities can attract and support skilled people using a form of the creative class approach, but they are behind a bit – at a different point than their larger counterparts (Lewis & Donald, 2010). These cities should be adapting a model to their needs, not applying some formulaic borrowing of the creative class approach (Lewis & Donald, 2010). Lewis and Donald (2010), in their work: “A New Rubric for Creative City Potential in Canada’s Smaller Cities,” proposed their alternate path begins with a vision focusing on “quality of life,” specifically livability and sustainability (rather than talent, technology, and tolerance). This theme is more realistic for smaller cities, placing the situation more in their own hands (Lewis & Donald, 2010). Lewis and Donald (2010) presented seven measurable indicators of city performance with their new quality of life themed model.

\(^4\)There are three general ways scale provides a competitive advantage: first, larger cities provide a greater critical mass of economic actors and other resources for firms; second, they provide the necessary social and institutional infrastructure; third, they have a greater propensity to attract highly-skilled talent through certain employment opportunities, “quality of life” amenities, and lifestyle options (See Figure 1-2). See the work referenced as Donald and Morrow (2003) for an elaboration.
1.5 Outline of Report

This leads to the outline of the report. Belleville, Ontario is a smaller Canadian city that by location, by built form, and with regard to the current planning context is a city of potential in the knowledge economy. Belleville will be evaluated for its performance relative to nine other Canadian cities using 3Ts of economic development indicators and the quality of life themed indicators introduced by Lewis and Donald (2010). The non-scientific nature of this methodology cannot lead to an unequivocal conclusion about what model best fits the community. Nonetheless, the report benchmarks Belleville’s relative performance and can identify Belleville’s relative developmental strengths and weaknesses. By the results of the performance analysis, the report argues that the downtown is a crucial resource for Belleville to improve its attraction and retention power of knowledge workers (or the creative class) and improve overall quality of life.
2 Background

2.1 The Study Area: Belleville in Context

Belleville is in Southern Ontario, approximately at the geographic centre of the Quebec City-Windsor Corridor (Figure 2-1). The Corridor contains three out of the four largest Canadian cities and about 40 percent of Canada's population (Regionomics, 2008). Belleville is located in close proximity to both Canadian and U.S. markets (Office for Urbanism, 2006a). In 2006, there were approximately 49,000 in the City of Belleville, 92,000 in the region, and 200,000 people located within a thirty-minute drive. Belleville is less than an hour drive from the U.S. border (City of Belleville, 2011).

Figure 2-1. Belleville in Context of the Quebec City-Windsor Corridor (2006)
(Source: Office for Urbanism, 2006a, p. 4)
Belleville is located in what is termed the “Tor-Buff-Chester” economic mega-region\(^5\), one of roughly a dozen mega-regions that comprise the North American Economy. “Tor-Buff-Chester” extends from Waterloo and London, through Toronto, eastward to Ottawa, Montreal, and Quebec City, and down to Syracuse, Ithaca, and Utica in the United States (Florida, 2009a). It is a binational mega-region with an economy of more than $530 billion (ranked 12\(^{th}\) worldwide) and a population of 22.1 million (Florida, 2009a). Table 2-1 provides an overview statistical profile of Belleville in 2006. Figure 2-2 illustrates the composition of the North American economy by mega-region, with “Tor-Buff-Chester” labeled.

### Table 2-1. Profile of Belleville, Ontario

<table>
<thead>
<tr>
<th>Summary Statistics</th>
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<tbody>
<tr>
<td>Total Population (2006)</td>
<td>91,518</td>
</tr>
<tr>
<td>GDP (CAD Millions), 2006</td>
<td>$3,600</td>
</tr>
<tr>
<td>Median Age, 2006</td>
<td>39.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Performance</th>
<th></th>
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<tbody>
<tr>
<td>Population Growth (00-05)</td>
<td>4.70%</td>
</tr>
<tr>
<td>Job Growth (00-05)</td>
<td>3.50%</td>
</tr>
<tr>
<td>GDP Per Capita (2006)</td>
<td>$39,800</td>
</tr>
<tr>
<td>Change in Average Wage (00-05)</td>
<td>-3.20%</td>
</tr>
</tbody>
</table>

(Source: Martin Prosperity Institute, 2008)

Belleville is approximately 40 kilometres north of Prince Edward County, an island community with strong tourist appeal. Dubbed by the Toronto Star, the “Hamptons of Toronto,” the County is, “renowned for its sailing, fishing and giant sand dunes... it also offers live theatre, artists studios and galleries, unique regional cuisine and a flourishing wine region” (Prince Edward County, 2011; Foster, 2008). The County is home to one of Canada’s best beaches and natural wonders – the Sandbanks Provincial Park - which comprises two of the largest freshwater baymouth sandbars in the world (Ontario

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\(^5\) “Mega-regions are integrated sets of cities and their surrounding suburban hinterlands across which labor and capital can be reallocated at very low cost” (Florida, 2007, p. 3). For an in-depth explanation see “The Rise of the Mega-region,” referenced as Florida, Gulden and Mellander (2007).
Parks, 2011). The County draws in over 100,000 visitors annually (Prince Edward County, 2011). Tourists coming from Toronto and elsewhere often travel through Belleville, connecting to the County by Belleville's Bay Bridge.

Figure 2-2. The Spatial Distribution of the North American Economy by Mega-region. Note: Belleville is located within the “Tor-Buff-Chester” mega-region, depicted near the top-right. For details and methodology of how this was created see “The Rise of the Mega-region” referenced as Florida, Gulden and Mellander (2007).
(Source: Florida, Gulden & Mellander, 2007)

2.2 Downtown Belleville

Downtown Belleville is located on the north shore of the Bay of Quinte, at the mouth of the Moira River (Figure 2-3). Established residential neighbourhoods surround the downtown on three sides. It is also in close proximity to both Belleville’s Train Station
and General Hospital. The downtown provides direct connections north to Highway 401 and east and west along Dundas Street (Office for Urbanism, 2006a).

![Map of Downtown Belleville](image)

**Figure 2-3. Downtown Belleville in Context: Physical Patterns, Patterns of Circulation, and Land Uses (2006). Note: see Appendix A, Figure A-2, for the inset map that is outlined in red.**

(Source: Office for Urbanism, 2006a)

The streets are primarily oriented north-south, and are arranged in a modified grid network. Most of the larger open spaces are located along the Bay of Quinte and the Moira River. The majority of the smaller open spaces are found in the centre of the downtown. Land uses are mixed, as they are in a “traditional” downtown core. Along Front Street, buildings are typically setback and closely knit. The downtown has an extensive network of sidewalks and numerous formal and informal mid-block connections linking Front St. to the river-side parking lot. There are major recreation functions at the waterfront areas, including a waterfront and riverfront trail system. In the traditional core area, there is a concentration of heritage character and throughout the downtown there are several landmark buildings. Arts and entertainment is
concentrated along Pinnacle Street and on Front Street, which includes the Empire Theatre. Regional and municipal services are located throughout the downtown. Niche boutiques, café’s and specialty stores are concentrated along Front Street in the traditional downtown core (Office for Urbanism, 2006a). For the full summary of downtown Belleville’s character, with accompanying maps, see the “Downtown Belleville Master Plan Background Report,” referenced as Office for Urbanism (2006a).

2.3 Planning Downtown Belleville

Belleville, Ontario’s downtown is a diamond in the rough. In August 2010, the downtown was reported to have a 30 percent vacancy rate (Rector, 2010). Local newspaper articles reinforce this notion, with titles such as “Dirty, dreary downtown needs some work” (Picton, 2010) or statements such as “The city’s core has, for years, retained a reputation as a location for shady characters, drug deals, prostitution and crime but that reputation, some say, is based more on perception than proof” (McVicar, 2010). Local residents make comments in these articles, such as:

“We need to find a visionary individual who has business skill and the ability to win over corporations to bring them to Belleville” (Rector, 2010).

“The above stories CLEARLY show peoples perception of the downtown core. It has become this way because Mayor Ellis/city council have chosen to TOTALLY IGNORE the SERIOUS issues afflicting the downtown, although downtown Belleville is NOT the only area/issue DESPERATELY needing help that they have CHOSEN to IGNORE. While revitalizing the downtown is DEFINITELY do-able, it will NOT happen under the current administration” (Rector, 2010).

“Downtown needs real, tangible, visible action -- not a master plan that for the last several years has been virtually idle” (Rector, 2010).

Belleville is far from the only city to be subject to such a transformation and decline of its downtown. Today, in North America, few healthy downtowns exist - with the exception of Canada’s most populated metropolitan cities. Downtowns are a product, largely, of the flight to the suburbs (Filion et al., 2004). In a 2004 study by Filion et al., aptly titled “The Successful Few,” only 19 of 202 North American small metropolitan
regions were identified as having successful downtowns⁶ (Filion et al., 2004). There is no doubt that many communities are experiencing serious difficulties.

The good news is that evidence of downtown decline has triggered interest in renewal. A trend for downtown revitalization is happening across North America (Filion et al. 2004). For Belleville, this materialized through a number of moves, including the formation of the Belleville Downtown Improvement Area (BDIA), the creation of the “Downtown Belleville Master Plan” (2006) and recently a review and synthesis of the downtown master plan recommendations by RFA Planning Consultant Inc. The findings of RFA Planning Consultant Inc. were presented on November 10, 2010 at the Annual General Meeting of the BDIA (RFA Planning Consultant Inc., 2010). The presentation and its accompanying document were subsequently submitted to the Mayor’s Downtown Task Force (RFA Planning Consultant Inc., 2010).

The “Downtown Belleville Master Plan” won the 2007 Award for Excellence in the Category of Downtown Planning by the Canadian Institute of Planners (Canadian Institute of Planners, 2011). It was prepared by Office for Urbanism for the City of Belleville and Belleville Downtown Improvement Area. It is the product of a highly collaborative process, with the public formally involved through a visioning workshop and open houses (Office for Urbanism, 2006b). The master plan provides a physical framework of downtown and clear directions for action for the BDIA and the city over a ten to fifteen year period (Office for Urbanism, 2006b, p.2). Regarding the state of downtown, the plan is hopeful: “The decline over many years has adversely impacted the area’s aesthetic quality, urban vitality and perceived image. Fortunately, downtown Belleville’s treasured assets remain intact and it is well positioned to seize upon emerging opportunities to revitalize and transform its image” (Office for Urbanism, 2006b, p.2).

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⁶ Identification as “successful downtown” required a downtown to be cited in one of the two top categories on the seven-point scale running “from very successful downtown to very unsuccessful downtown” by at least 20 percent of the respondents who gave it a rating (Filion et al., 2004, p. 332). Respondents comprised university planning, urban studies, and urban geography faculty members; planners employed by the central cities of small metropolitan regions; and professionals with a possible interest in downtown revitalization who are associated with government agencies (such as regional HUD offices) and economic development and research institutes with an urban focus (e.g., Main Street Councils and the Brookings Institution) (Filion et al., 2004, p. 330).
Following the master plan’s release in 2006, it was adopted by Belleville’s city council. Unfortunately, it was subsequently shelved.

RFA was retained by the Belleville BDIA to review and update the master plan. RFA’s document is built around development themes to empower downtown planning and a listing of recommended projects for the Mayor’s Downtown Task Force.

It is acknowledged that, “While no longer the primary retail centre in the region, the Downtown plays an important role in the City. The Downtown is the symbolic heart of Belleville and a reflection of our civic pride. It is a location for businesses and generates tourism. The Downtown provides tax assessment and supports Smart Growth principles” (RFA Planning Consultant Inc., 2010, p. 1). RFA’s update of the Downtown Belleville Master Plan centres on four development themes.

1.) Downtown as an Attraction

- Create more destinations and public spaces: capitalize on the built heritage and history and proximity to Prince Edward County.
- To support cultural attractions: enhance walkability, create safe and inviting streets, and develop complementary uses.
- City Hall is the most important landmark building in the city: it should be a gathering place. Improve the design of public space around this structure, and create a riverfront civic plaza.
- The Memorial Arena as the other focal point of the riverfront civic plaza: it is a tourist attraction and there should be an enhancement of the outdoor market.

2.) Downtown as 8 - 80 district

- Provide safe active transportation for all residents from 8 to 80 years old.
- Safe, inviting streets and public spaces.
- Attract visitors by providing good “first impressions” along major gateways into the City. Belleville is missing opportunities to draw tourist traffic from Prince Edward County into the downtown area.
- Provide a new trail connecting Loyalist College to the downtown.
3.) Downtown as Residential Area

- Increase the number of people living near and in the downtown.
- Loft/work spaces.
- Housing for seniors.
- Residential infill along the Riverfront Trail.
- Redevelop the backs of the buildings facing the river.

4.) Downtown as Employment Centre

- A prime location for government and business sectors in the City and region.
- The new police station could be located downtown.
- Need quality office space and employee parking to draw this sector to the downtown.

(RFA Planning Consultant Inc., 2010)

The themes translate to a prioritization of projects, which are summarized as: the Riverfront Plaza, Memorial Centre, New Police Station, Parking Review, Development Incentives, Dundas Gateway, Bridge Street Trail, Carriageways and Lighting (RFA Planning Consultant Inc., 2010).

2.4 Conclusion

Belleville has an excellent location for both the potential of connecting economically to the “Tor-Buff-Chester” mega-region and also for drawing in people to live and to visit (e.g. Prince Edward County) from surrounding areas. Physically, the downtown is conducive to Smart Growth principles, as it is a compact environment with multiple land uses, amenities and pedestrian connectivity. Belleville’s downtown has experienced serious decline as a result of suburban growth. However, Belleville has an award-winning downtown master plan, and a recent updating of this plan that has drawn attention to the downtown. None of the documents reviewed made mention of Belleville’s role in the knowledge economy, which highlights the purpose of this study as a means to build this link.
3 Methodology

3.1 Research Method Overview

This study conducted a performance analysis of Belleville, Ontario relative to nine other Canadian cities, as measured by four of Richard Florida’s 3Ts of economic development indicators and six indicators of Lewis and Donald’s (2010) model, which for this report is termed the “quality of life” model. A thorough document and literature review was conducted in order to construct this study’s evaluative framework and develop the research question.

The information for this study is secondary source and based on two sources of evidence. A few chapters should be elaborated on for their sourcing. The information of Chapter 1 is documentary information and is the product of an extensive literature review. Chapter 2’s background information on Belleville is also documentary information and is both the product of an extensive literature review and also uses planning documents that were obtained directly from the Belleville Downtown Improvement Area (See RFA Planning Consultant Inc., 2010; Office for Urbanism, 2006). The primary source of evidence for “Chapter 4: Results” are archival records, which is the data for the performance analysis. This constitutes the “quality of life” model data from Statistics Canada’s 2006 Census and the 3Ts of economic development data from the Martin Prosperity Institute of the University of Toronto.

The method of benchmarking city performance by 3Ts of economic development indicators has been used in similar works about urban policy and development strategy. In 2003, the report “Competing on Creativity: An Analysis of Kingston, Ontario” was prepared for the Kingston Economic Development Corporation (See Gertler & Vinodrai, 2003). The report concluded that Kingston, Ontario has some very solid foundations for talent-based economic development strategies. The researchers came to this conclusion by employing 3Ts of economic development indicators and evaluating Kingston’s performance relative to other Canadian and North American city-regions. Their research method employed the Talent Index, Bohemian Index, Tech Pole Index and
Mosaic Index indicators, all of which except the Bohemian Index are used for this report (Gertler & Vinodrai, 2003). Comparison of the cities was done using ranking charts. The precedent setting report for this study was 2002s “Competing on Creativity: Placing Ontario’s Cities in North American Context” (See Gertler, Florida, Gates & Vinodrai, 2002).

The method of benchmarking relative city performance by the “quality of life” model was introduced in 2010, in the work “A New Rubric for ‘Creative City’ Potential in Canada’s Smaller Cities” by Lewis and Donald and published in Urban Studies. The authors proposed that smaller Canadian cities would demonstrate advantages over larger urban centres in quality of life rather than quality of place. They proposed eight measurable indicators to evaluate city performance. Again, comparison of the cities was done using ranking charts.

### 3.2 Rationale for the Ten Cities

The ten cities were chosen because:

(1.) Data was available for them;

(2.) They are all Canadian cities at different stages of economic development;

(3.) The cities can be separated for comparison by population-based geographic unit of census metropolitan areas\(^7\) (CMAs) versus smaller census agglomerations\(^8\) (CAs); and,

(4.) They can be separated into three groups, and compared by these groups, each of which constitutes a distinct city size of the: larger Canadian city, the medium-sized census metropolitan areas, and the smaller census agglomerations.

Below, **Table 3-1** lists the ten cities and their corresponding populations. Except Ottawa-Gatineau, all of the cities are grouped with their peer cities or regions, which were chosen based on similar population sizes.

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\(^7\) CMA is one or more adjacent municipalities that together form one urban core of at least 100,000 in population, by census count (Statistics Canada, 2002).

\(^8\) CA is one or more adjacent municipalities that together form one urban core of at least 10,000, by census count (Statistics Canada, 2002).
Belleville is included with four other census agglomerations from Ontario. Belleville’s performance relative to its peer cities will indicate its position (strengths and weaknesses) compared to census agglomerations of similar population size. Kingston, Ontario is accompanied by three peer cities, all of which are census metropolitan areas. Kingston, Ontario and its peer cities have significantly larger populations than Belleville. Kingston was concluded to have some very solid foundations for talent-based economic development strategy (Gertler & Vinodrai, 2003). Belleville’s performance compared to Kingston and its peer cities on 3Ts of economic development indicators can indicate Belleville’s foundation for talent-based economic development strategy. Likewise, a poor performance by Belleville and its peer cities with the creative capital indicators, but a stronger relative performance on quality of life indicators will lead to an alternative conclusion. Ottawa-Gatineau was chosen as an example of a larger Canadian city: the only city of this study with a regional population exceeding one million residents. Since it is hypothesized that 3Ts of economic development indicators favour larger metropolitan areas, Ottawa should fare better than any of the others cities on these indicators. Belleville’s performance will be evaluated by comparison to the results of other cities, as they are ranked in tables. Below, Table 3-2 lists the indicators. Following Table 3-2, each indicator has been defined.

<table>
<thead>
<tr>
<th>Cities &amp; Groups</th>
<th>City</th>
<th>Population, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A</td>
<td>Belleville, CA (Ont.)</td>
<td>91,518</td>
</tr>
<tr>
<td>2. B</td>
<td>Owen Sound, CA (Ont.)</td>
<td>32,259</td>
</tr>
<tr>
<td>3. C</td>
<td>Orillia, CA (Ont.)</td>
<td>40,532</td>
</tr>
<tr>
<td>4. D</td>
<td>Sarnia, CA (Ont.)</td>
<td>88,793</td>
</tr>
<tr>
<td>5. E</td>
<td>Sault Ste. Marie, CA (Ont.)</td>
<td>80,098</td>
</tr>
<tr>
<td>6. A</td>
<td>Kingston, CMA (Ont.)</td>
<td>152,358</td>
</tr>
<tr>
<td>7. B</td>
<td>Sherbrooke, CMA (Que.)</td>
<td>186,952</td>
</tr>
<tr>
<td>8. C</td>
<td>Trois-Rivières, CMA (Que.)</td>
<td>141,529</td>
</tr>
<tr>
<td>9. D</td>
<td>Kelowna, CMA (B.C.)</td>
<td>162,276</td>
</tr>
<tr>
<td>10. A</td>
<td>Ottawa-Gatineau, CMA (Ont./Que.)</td>
<td>1,130,761</td>
</tr>
</tbody>
</table>

Table 3-1. The Sample Cities and their Corresponding Populations (Source: Statistics Canada, 2006a)
### A. Florida’s 3Ts of Economic Development

| 1. Creative Class as a Percentage of the Workforce |
| 2. Talent Index (percentage of population over 25 with a BA and above) |
| 3. North American Tech Pole Index |
| 4. Mosaic Index (Foreign-born as a percentage of population) |

### B. Lewis and Donald’s Quality of Life

| 1. Housing Condition |
| 2. Housing Affordability |
| 3. Median Commuting Distance |
| 4. Public Transit as a Percentage of all Modes of Commuting |
| 5. Other Sustainable Commuting Modes (measured as a. & b.) |
  | a. Walking as a Percentage of all Modes of Commuting |
  | b. Biking as a Percentage of all Modes of Commuting |

#### Table 3-2. Summary Table of Indicators

### 3.3 3Ts of Economic Development Indicators

The key indicators are the Talent Index, the Creative Class as a Percentage of the Workforce, the Tech Pole Index, and the Mosaic Index. Each indicator falls under the umbrella of one of the 3Ts of economic development, namely, a city’s talent, technology or tolerance performance.

#### Talent Index (Talent)

The Talent Index is defined as the proportion of the population 25 years of age and older with a Bachelor’s degree (four-year) or higher (Master’s, Graduate, PhD) (Martin Prosperity Institute, 2008). This is a measure of human capital or talent, by education. It is the conventional measure of human capital in a region. It assumes a somewhat commensurate increase of labour productivity with increasing education. Therefore, it assumes highly educated or highly skilled workers are more productive and command higher wages, which in effect translates to higher income and wage accumulation across the region they live (Florida et al., 2010). If used alone as a measure of human capital, the measure is in some regards insufficient, as it is a measure of potential skill, not actual skill. It fails to capture other forms of knowledge acquisition activities and it is too broad to specify what types of skills characterize a region. It also does not include
certain highly skilled people, such as successful entrepreneurs who did not complete a university education (Florida, Mellander, & Stolarick, 2009).

**Creative Class as a Percentage of the Workforce (Talent)**

The creative class is distinguished from other classes by what they are paid to do (Donald & Morrow, 2003). The creative class is paid to create (Donald & Morrow, 2003). It constitutes occupations that require creative problem solving and/or the generation of new forms. The creative class is distinguished from the “working class” or “service class,” who are paid to primarily carry out routine or pre-designed functions (Donald & Morrow, 2003). The Creative Class as a Percentage of the Workforce is a measure of human capital or talent, *by occupation*. Unlike a measure of education, this indicator captures how human capital is absorbed by and used by the economy; in this case, the creative class of the workforce. Florida argues that it is a more direct measure of skill in accounting for regional development (Florida et al., 2009).

**North American Tech Pole Index (Technology)**

The Tech Pole Index is a measurement developed by the Milken Institute. It is a measure of the prevalence or spatial concentration of high-tech industry in a metropolitan area (The Milken Institute, 2010). From Gertler and Vinodrai (2003):

> The Tech Pole Index compares a region’s share of national employment in technology-intensive manufacturing and service industries to the region’s overall share of national employment; this is then adjusted for city-size by multiplying by a region’s share of national high-technology employment. Therefore, it reflects both the region’s degree of specialization in technology-intensive activity as well as its sheer scale of employment in these sectors (Gertler & Vinodrai, 2003, p. 1).

The index is a measure of high-tech industrial clustering by region. Industries cluster to take advantage of the economies of clustering. Skill-intensive firms must locate where they can access skilled labour and skilled labour locates based on quality of place. Skilled labour will not locate where there are not job opportunities, making the three conditions necessary to begin with. Firms must bid for skilled labor in order to gain competitive advantage. They do this in part by locating in places that appeal to the lifestyle of high-human capital individuals and reflect their values (Florida et al., 2010).
Mosaic Index (Tolerance)

The Mosaic Index is calculated as the proportion of the total population at the regional scale that is foreign-born (Martin Prosperity Institute, 2009c). It is a measure of tolerance, diversity, and a low barrier for entry to newcomers.

3.4 Quality of Life Indicators

The key indicators are Housing Condition, Housing Affordability, Commuting Distance, Public Transit Usage, and Other Sustainable Commuting Mode Share. Each indicator falls under the umbrella of either livability and economic sustainability, or environmental sustainability performance. Two indicators of Lewis and Donald’s (2010) study were excluded.

Housing Condition

Housing Condition will be measured by the “percentage of housing in a city in need of major or minor repairs.” The overall condition of a city’s housing stock is a strong measure of its livability and aesthetic appeal (Lewis & Donald, 2010). Lewis and Donald (2010) state that good quality housing provides a more sustainable foundation for economic growth.

Housing Affordability

Housing Affordability will be measured by the “percentage of households spending less than 30 percent of their income on shelter.” Housing affordability is a vital quality of life concern, especially given the recent explosion of housing costs in cities like Vancouver, Toronto and Calgary. Since the affordability of basic needs and services is integral to creativity, smaller cities can use their affordability advantages to attract creative workers that require space and time to create their product (Lewis & Donald, 2010).

Commuting Distance

Commuting Distance will be measured by “median commuting distance (kilometres)”. Commuting affects both livability and sustainability in a city. Urban expansion and
congestion has made commuting distance a chief concern, as Canadians are forced to spend more time in their cars. Commuting distances are highly variable in Canada, but the overarching trend is that larger cities have the longest commute distances. The disincentives brought about by long commuting distances have led some creative workers to choose smaller cities (Lewis & Donald, 2010).

**Public Transit Usage**

Public Transit Usage will be measured by “public transit as a percentage of all modes of commuting.” Public transit is a sustainable commuting mode, and a measure of the sustainability of a city. Lewis and Donald (2010) make the point that transit ridership is largely related to its availability – not just location or chance. Many of Canada’s larger cities have higher ridership levels because local transport policies and high investment have made this so, while cities with less transit-oriented policies have lower ridership (Lewis & Donald, 2010).

**Other Sustainable Commuting Modes**

This will be measured by, “walking as a percentage of all modes of commuting” and “biking as a percentage of all modes of commuting” (Lewis & Donald, 2010). The most sustainable forms of commuting are walking and biking. Both of these indicators represent the environmental sustainability of a city.

**Excluded Indicators**

The Ecological Footprint and Education indicators of Lewis and Donald’s study are not being employed for this report. Required ecological footprint data was not found and due to difficulties in calculating this measure (subject to the time constraints of this study), it has been excluded. Despite this, it is a useful indicator of environmental sustainability. Lewis and Donald (2010) demonstrated that there is variability across Canadian cities and smaller Canadian cities are able to capitalize on sustainability through this measure. The second variable that has been excluded is Education. Lewis and Donald (2010) present the Education indicator descriptively, in terms of the potential of a place’s educational system for developing creative talent and minds.
Gertler (2001) made a similar point that as immigration has brought dynamism and vitality to Canadian cities, it has also posed serious challenges for Canadian society and public policy (Gertler, 2001). He concludes, “The public school system plays an absolutely vital role in meeting the challenge of integration and social cohesion” (Gertler, 2001, p. 121). Hence, quality of the public school system (or a similar Education indicator) is a quality of life advantage and can support economic success.

3.5 Limitations of the Study and the Potential for Bias

A means to strengthen the validity and reliability of findings is to use many different sources of evidence (Yin, 2009). The rationale for this is termed “triangulation,” and the most important advantage for doing this is to develop converging lines of inquiry to develop fact. Thus, any single study is at an advantage in having more convincing and accurate findings if they rely on multiple sources of evidence all triangulating on the same research questions (Yin, 2009). A weakness in the research design of this study is it contains only secondary source information based on two sources of evidence. These two sources of evidence operate together as a means to address bias and increase the validity and reliability of the findings. Whereby, as often as was possible, the findings from the archival records are backed up by document evidence and vice versa. Interview(s) could have been a source of evidence to validate and enhance the reliability of the report’s findings. In complement to the performance analysis, interviews would have illustrated, in greater depth, the implications of the findings (Yin, 2009). However, due to trouble coordinating deadlines the interviews were not conducted.
4 Results

4.1 Talent (Human Capital)

Figure’s 4-1 and 4-2 display the divergent levels of the creative class and human capital amongst the city-regions. Figure 4-1 indicates that Belleville ranks ninth by the proportion of the creative class that composes its region's workforce. The spread between the fourth ranked city to Belleville’s position is 4.8 percent. The more populated cities show a higher proportion of the creative class, as in descending order the cities are roughly arranged by population size. This can also be seen by city designation, as the census metropolitan areas seem to compose the top half of the rankings, while the census agglomerations compose the bottom half. Ottawa has the highest ranking, a value that is 18.9 percent greater than Belleville. Figure 4-2, the Talent Index, is the conventional measure of human capital. It shows Belleville ranks last relative to the other nine cities. Again, the larger urban areas seem to have a higher proportion of human capital, as the cities are roughly arranged in descending order by population size and by CMA versus CA status. Ottawa ranks first, 22.4 percent above Belleville, while Kingston holds a strong second, with a talent index ranking 11.8 percent higher than Belleville.
Figure 4-1. Creative Class as a Percentage of the Workforce
Belleville, ON and Peer Regions, 2006
(Source: MPI, 2008; MPI, 2009c; MPI, 2009d)

Figure 4-2. Talent Index (% Pop > 25, BA and Above)
Belleville, ON and Peer Regions, 2006
(Source: MPI, 2008; MPI, 2009c; MPI, 2009d)
4.2 Technology

Rankings on the Tech Pole Index are shown in Figure 4-3. By way of calculation, the Tech Pole Index favours a larger city-region whose economy is highly specialized in technology-intensive sectors versus a smaller city whose economy has a similar level of high-tech specialization (Gertler & Vinodrai, 2003). Belleville has a middle five ranking, but it does not represent a strong showing. With the exception of Ottawa, none of the cities in the sample perform well. As a measure of economic development, these results essentially categorize the nine other cities as economic losers. The measure is systematically biased to favour Canada’s largest cities: only big city tech poles are considered important.

Figure 4-3. North American Tech Pole Index
Belleville, ON and Peer Regions, 2006
(Source: MPI, 2008; MPI, 2009c; MPI, 2009d)
4.3 Tolerance

As shown in Figure 4-4, Belleville ranks seventh on the Mosaic Index. Ottawa-Gatineau ranks first, with nearly one in five residents being foreign-born. Kingston ranks fourth (12.1%), with its peer city Kelowna ranking second at 14.6 percent. There does not appear to be a population-based trend.

![Mosaic Index (% Pop.)](image)

**Figure 4-4. Mosaic Index (% Pop.)**
Belleville, ON and Peer Regions, 2006
(Source: MPI, 2008; MPI, 2009c; MPI, 2009d)

4.4 Livability and Economic Sustainability

The condition of housing stock is a measure of livability and aesthetic appeal. Figure 4-5 demonstrates that there does not seem to be a trend between the condition of housing stock and city population size. Lewis and Donald (2010) support this trend, they state that in their sample there was not a positive trend that larger cities capitalize on - as with the creative capital rubric. Belleville ranks ninth, which is only 1.8 percent below the third-highest ranking city. Figure 4-6 is the result for housing affordability, a measure of economic sustainability and a vital quality-of-life concern. Belleville ranks
sixth, slightly ahead of Kingston. Interestingly, Sarnia and Sault Ste. Marie rank first and second, with nearly 80 percent of residents spending less than 30 percent of their income on shelter. The results highlight housing affordability as an attractive quality of life advantage of Belleville and its peer cities.

**Figure 4-5. Percentage of Housing in Need of Major or Minor Repairs**

**Belleville, ON and Peer Regions, 2006**

(Source: Statistics Canada, 2006b)
### Figure 4-6. Percentage of Households Spending Less Than 30 Percent of their Income on Shelter
Belleville, ON and Peer Regions, 2006
(Source: Statistics Canada, 2006c)

#### 4.5 Environmental Sustainability

Median Commuting Distance (Km) (Figure 4-7) shows a trend that is strongly split by city size. Belleville and its census agglomeration peer cities all have median commuting distances of less than five kilometres, while all the census metropolitan areas comprise the top-half of the rankings. Ottawa ranks first at 8.1 kilometres. Overall, the results indicate another means for Belleville to capitalize on the disincentives of long commutes. Figure 4-8 is public transit ridership by city-region, a sustainable commuting mode. Ottawa dominates the rankings, as public transit is largely a big city activity (Lewis & Donald, 2010). Walking and biking are among the most sustainable forms of commuting. Figures 4-9 and 4-10 shows that there does not appear to be a trend by city size; however, Lewis and Donald (2010) found smaller cities commanded the top rankings for walking and biking in their sample of 27 Canadian CMAs. Kingston ranks first in commuting by walking at nearly ten percent (Figure 4-9). Biking is attractive as a sustainable commuting mode, but none of the cities in this
sample seem to have taken advantage of this. Lewis and Donald (2010) found great variability in their sample of cities of all sizes from across Canada. This implies that if biking is supported (e.g. bike paths, bike culture) a city can improve by this mode (Lewis & Donald, 2010).

Figure 4-7. Median Commuting Distance (Km)
Belleville, ON and Peer Regions, 2006
(Source: Statistics Canada, 2006d)
Figure 4-8. Public Transit as a Percentage of all Modes of Commuting
Belleville, ON and Peer Regions, 2006
(Source: Statistics Canada, 2006e)

Figure 4-9. Walking as a Percentage of all Modes of Commuting
Belleville, ON and Peer Regions, 2006
(Source: Statistics Canada, 2006e)
Figure 4-10. Biking as a Percentage of all Modes of Commuting
Belleville, ON and Peer Regions, 2006
(Source: Statistics Canada, 2006e)
5 Analysis

5.1 Implications for Belleville

On the whole, the results of this study indicate strengths and weaknesses of different cities. There was a trend for the more populated cities to perform better with 3Ts of economic development indicators. By the results of these indicators, Belleville is at a competitive disadvantage to a larger urban centre such as Ottawa in attracting and retaining talent and technology. Ottawa’s performance was emblematic of a larger city-region, as they are systematically favoured by the 3Ts of economic development indicators. However, the relatively poor performance by the smaller Canadian cities with the 3Ts indicators is not wholly a reflection of their potential to perform strongly in the knowledge economy. Instead, the “generational gap” of creative capital between Canada’s larger cities, census metropolitan areas such as Kingston, and smaller census agglomerations such as Belleville implicates each to assume different planning responses. “It is important to recognize that each municipality is at a different point in the creative process...Smaller cities, it seems, are destined to start farther back in the pack” (Lewis & Donald, 2010, p. 37). Belleville can still develop a role in the knowledge economy, but it must take a different approach, one that utilizes Belleville’s distinct quality of life advantages. This section discusses how the results implicate responses in a few different areas, and then expresses the rationale for Belleville’s downtown as a key resource in the knowledge economy.

To begin, Belleville should be promoting its quality of life advantages and supporting the attributes of its built environment that are conducive to generating and transporting ideas between knowledge workers throughout the city-region and the greater “Tor-Buff-Chester” mega-region. Belleville is not to be competing with larger urban centres, but integrating into sub-national Canadian business networks (Lewis & Donald, 2010). Gertler (2001) explained that more and more, Canadian firms are forming close collaborative ties amongst one another and increasingly embedding themselves into Canadian business networks. A successful city or mega-region in the knowledge economy is dependent on the “quick and efficient circulation of people, ideas, and goods”
Belleville is located within the “Tor-Buff-Chester” mega-region corridor, and the quality of life indicators highlighted the market for small city solutions to big city problems related to agglomeration and congestion. Housing costs have exploded in larger cities like Toronto, Vancouver, and Calgary, but with only Ottawa-Gatineau as an example larger city there was less spread between city-regions (Lewis & Donald, 2010). “A recent Conference Board of Canada study showed, for example, that Canada’s nine largest cities have lost CDN $2.3–3.7 billion in productivity each year due to time lost during congestion while commuting” (Lewis & Donald, 2010, p. 44). Cities in close proximity to Belleville have even longer median commuting distances than Ottawa demonstrated (as shown in Figure 4-7): Toronto (9.4 km), Oshawa (11 km), Hamilton (8.3 km) (Statistics Canada, 2006d). Belleville should also be forming intraregional relationships with larger urban centres and working to improve its connectivity to cities and lowering costs to travel to large urban centres such as Toronto and Ottawa. Places in the knowledge economy are not to be understood as containers, but fluid, just as the high mobility of talent and technology are better characterized as flows rather than stocks (Florida et al., 2010). As the economic costs of agglomeration and congestion mount in larger cities, Belleville can attract knowledge workers and new businesses with its comparative quality of life advantages.

A second implication of this study’s results is that Belleville should be taking steps to grow and retain a talented workforce from within, instead of competing solely on talent attraction. Belleville showed poor talent rankings (Figures 4-1 and 4-2), but has smaller-city quality of life advantages (See Figure’s 4-6 through 4-10) and a proximal location to attract newcomers (See Section 2.1). Nearby Toronto’s value on the Mosaic Index is 45.7 percent (in 2006): the city has arguably one of the most diverse populations in the world and the Toronto CMA is the major gateway for immigrants in Canada (Statistics Canada, 2009; Florida, 2009). From 2001 to 2006, more foreign-born people settled in the Toronto CMA than in any other metropolitan area across the nation (40.4 percent chose Toronto). From 1995 to 2005, immigration accounted for almost 70 percent of the growth in Canada’s workforce (Cryne, Kara, & Berezowski, 2005). “They’re largely highly educated, highly skilled newcomers who are increasingly settling in established immigrant communities in the 905 regions, said economist David
Baxter, executive director of the Urban Futures Institute” (Carey, 2003). Further, “Just as immigrants have spread from Toronto to the regions of Peel, Halton, York and Durham, they are moving increasingly into smaller cities” (Carey, 2003). Belleville and its peer census agglomerations demonstrated modest values on the Mosaic Index (Figure 4-4). Belleville should be working to capture this immigration influx, as Toronto’s edge cities have. To build a city that is supportive and attractive to foreign talent, Belleville could focus on the public school system and the downtown (regarding the latter see next Section 5.2). Gertler (2001) pointed out that a key to the challenges of immigrant integration and social cohesion is the public school system: “high-quality, publicly funded schools with strong ESL (English as a Second Language) programs is advantageous for any city wishing to attract immigrants and facilitate their opportunity to improve their incomes and socio-economic status” (Gertler, 2001, p.121). A high quality school system would be a comparative advantage and an attractive building block for immigrants and young parents coming from Toronto or elsewhere, who can also benefit from the other smaller-city advantages (Gertler, 2001; Florida, 2009).

The other half of producing a strong talent base in Belleville is to create an environment that will retain youth and attract skilled youth. Many communities small and medium-sized are hampered with problems of retaining and attracting youth. There seems to a trend whereby young people grow up in smaller and medium sized communities then leave for opportunities in Canada’s larger cities (Siegel, 2008). A place that retains youth is one where they can form a connection with and leverage their talents (Siegel, 2008). Siegel (2008) focused on how communities can attract and retain (i.e. manage inflows and outflows) of young people (25-34 year olds). He tracked flows over 27 CMAs and the results located each community on a spectrum of inflow and outflow of youth. For instance, Toronto was found to have strong low inflow-low outflow of youth, likely a result of its tight housing market, but strength to retain youth that are likened to Toronto’s opportunities. Siegel (2008) also conducted research and worked in-depth with youth in the Niagara area of Ontario to determine why youth were leaving the area. The positive responses were narrow, but strongly expressed about the natural beauty of the area, it’s medium size (defaulted quality of life advantages), and strong sense of community. The negative responses constituted a lack of well-paying jobs in diversified
industries, too much focus on the tourism industry and accommodating retirees, and that “this place is boring and other places are better” as expressed by the youth in focus groups. Further, the Brock University students felt separated from the region by the “Brock Bubble”. Siegel’s (2008) summary point was that a different make-up of youth inflow-outflow would implicate Belleville to a different response. For instance, a high outflow (retention) might begin with conducting surveys or focus groups to determine why people are leaving, while a low inflow (attraction) could require a study on the types of opportunities (e.g. recreational, cultural, a healthy downtown) Belleville could create to attract youth. He concluded that, on balance, the situation is not so bleak, as all of the expressed negatives can be improved. Belleville should be examining its net flow of youth, and then managing the situation accordingly.

The central point of this section is that Belleville should be adopting its own development model, one that works to attract and retain creative capital and builds on Belleville’s distinct advantage of quality of life. The “loser” status that is often attributed to smaller cities under the creative capital rubric (Figures 4-1, 4-2 and 4-3) can result in poor planning decisions (Lewis & Donald, 2010). Instead, Belleville should be supporting its built-in advantages. The quality of life model implicates more socially holistic planning for Belleville. This model implicates benefits across a broad socio-economic spectrum, rather than only the creative class, as its theme is sustainability and livability through providing quality and affordable housing, and promoting compact, environmentally sustainable practices. For Belleville to focus solely on the creative class means planning for a class of people and industry who are present in a much smaller proportion than in many of Canada’s larger cities. In effect, the quality of life model is more about planning for and supporting Belleville’s existing residents. Recognizing the difference between building for your own residents and for those who do not yet reside in the city is a central tension that urban planner’s have to consider in the knowledge economy. As noted by Lacey:

What you don’t want is an arts-and-culture theme park designed to entice businesses that reside out of state. You cannot create something for people who don’t yet exist and, at the same time, maintain local soul. That would be like moving the London Bridge to Lake Havasu to attract the dead and dying (Lacey, 2003).
In sum, successful cities “avoid formulaic borrowing and adapt models to the local context” (Bradford, 2004 as cited in Lewis & Donald, 2010, p. 37). The result is neither creative capital nor quality of life, but it is Belleville.

Most notable, enough so that it merited its own section in this report, Belleville should be taking advantage of the resource of the downtown. Gertler et al. (2002) concluded in their comprehensive report that to attract talent and technology Ontario’s city-regions need to strengthen their urban character through encouraging mixed land uses, and higher-density growth, with authentic and distinctive character. Kingston’s strong performance in this analysis on both the 3Ts of economic development and quality of life indicators would have been boosted by its healthy downtown (Filion, 2004). A 2004 Marketing Analysis study of downtown Kingston found the downtown to be a popular destination, with a special role and positive image (8020 Info Inc., 2004).  

5.2 The Downtown as a Resource: Lessons for Belleville

Belleville’s downtown is a resource to increase the power of knowledge worker attraction and retention, as well as improve quality of life for its existing residents. In review of the downtown planning literature (See Section 2.3), it stands that the report by RFA Planning Consultant (2010) has empowered possibilities for downtown Belleville planning through four development themes, namely: Downtown as an Attraction, Downtown as 8 - 80 District, Downtown as Residential Area, and Downtown as Employment Centre. This section examines Belleville’s downtown through these themes and rationalizes these themes as per their relevance in the knowledge economy. Each of these themes, although presented separately are not to be considered mutually exclusive of each other. Further, it should be acknowledged that built form or urban character is neither the only consideration nor the most important consideration to

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9 Specifically, the study found that more than half of study respondents visited the downtown at least once per week, and almost a quarter visit three or more times per week. A very high 79.8 percent of respondents said they would recommend downtown Kingston as a dining, commercial, and shopping destination (8020 Info Inc., 2004). Further, 23 percent of study respondents said they walked when they visited downtown. When asked about phrases to describe downtown Kingston, 90.8 percent of respondents agreed the downtown would be described as “The city’s heritage and cultural district,” 86.4 percent agreed it was the region’s “Premiere dining and entertainment district,” while 84.1 percent said they would describe Kingston’s downtown as “The Heart of the City” (8020 Info Inc., 2004).
motivate the regeneration of downtown. In the first place, downtown Belleville’s regeneration would be activated by efforts to attract businesses or jobs as a basis for wealth creation - to give people a reason to live there. Second, there has to be a sufficient mass of people downtown or near downtown, which is often facilitated by locating key buildings downtown (e.g. government buildings, hospitals, post-secondary institutions). Only after such fundamental elements are taken care of should a layer of cultural institutions and special amenities be added. The point is that there is certainly a hierarchy of needs or a cause-effect relationship involved in the regeneration of a downtown. As a result, certain events must take place before the positive effects of other events can be reaped (e.g. a mixed-use, high-density urban character must first be occupied by a mass of people).

Downtown as an Attraction. Belleville’s downtown could be a means to develop distinctiveness and place for the region. In most areas of the world, the downtown is known as the city centre. Rypkema (2003) uses this implicit point to underline the role a downtown should have as the area of a city concentrating buildings with symbolic meanings and the place of public gatherings. City by city, what will separate one from another is a distinctive sense of place. This is how people connect to a region. The Walmarts and Home Depots, amenities found in every place, are not what attracts and retains talented – especially young talented - workers. As stated by Florida:

The creative class doesn’t want generic amenities. Creative people look for authentic places that aren’t finished yet, places where you can add something of your own. ‘New ideas often require old buildings’, I learned from Jane Jacobs. Office towers, large-scale conference centres and multifunctional stadiums are boring. The creative class isn’t interested in shopping malls. They are already finished and therefore do not stimulate creativity. The built environment and an area’s people climate should be active and authentic (Hospers & van Dalm, 2005, p. 10).

It is the downtown that imbues meaning of place, a human scale, aesthetic values, and Canadian expression. The downtown contains the physical expressions of capitalism in a bygone era; expressions that contain heritage and the past of a people. In the post-industrial landscape, a building being leased by the likes of Home Depot or any big-box retailer is not rooted to a place. What is the identity of these places? Where is a city represented? Where is the image of a city defined? In a human sense, they are
meaningless buildings, a result of the impersonal force of globalization subsuming local
culture and character. What Belleville needs is local embeddedness; big box retail is not
embedded at the local scale, not built at the human scale, and is aesthetically hideous. The downtown builds distinctiveness and authenticity from any other place; it is
something people connect to a region. It is the downtown that confronts cultural
globalization, where Belleville enhances its sense of place, and becomes competitive in
the global marketplace (Rypkema, 2003).

**Downtown as 8 - 80 District.** The built form of Belleville’s downtown characterizes
Smart Growth: emphasizing walkability, mixed land uses, a human scale and public
spaces (See Section 2.2). This type of built form is conducive to social interaction and
could provide a physical experience between people of different backgrounds, which is
a valuable trait for creating a more open-minded culture and an appeal that the city is
open to newcomers. “People are happiest when they live in a place where they fit in”
(Florida, 2009a, p. 183). Belleville’s downtown should be the place to celebrate different
cultures, different people, and the meshing of cuisines, arts and entertainment, and all
of the uniqueness that collectively form the Canadian identity. Belleville’s downtown
could also be the type of attraction that will connect youth to the region and build
spatial proximity. Siegel (2008) identified the “Brock Bubble,” where as Brock
University students enjoyed use of the malls, restaurants, and bars of the Niagara region
they did not feel connected to the region. Belleville’s Loyalist College has a peripheral
location. The distinctive downtown of Belleville would be a way to build a connection
between these students and the region. As Siegel (2008) maintained, supporting
mobility is key, so pertinent to this working is effective transportation between
locations. RFA Planning Consultant Inc. prioritized the creation of a trail linking Loyalist
College students to the downtown (See Section 2.3). Prince Edward County, with its
strong leisure appeal, should also be considered an asset in connecting Loyalist
students to the region.

The 8 – 80 theme should also be about downtown as a means to foster socially
sustainable growth. Belleville’s downtown is the place to celebrate diversity and build a
multicultural vibrancy and milieu that is characteristic of many of Canada’s larger cities
Immigrants account for nearly 70 percent of Canada’s total population growth, yet Belleville’s result on the mosaic index demonstrates immigrants composed only 8.6 percent of the region’s population (See Figure 4-4) (Statistics Canada, 2008b). The social milieu and common space of a successful downtown is perhaps the most genuine place in today’s society to engage with diversity and foster socially sustainable growth (Rypkema, 2003). As noted by Rypkema:

“It has long been claimed that downtown is the only place in the community where the bank president and the homeless person come into direct contact. That is not only true but is a very important role for downtown to play. In fact, I would argue that downtowns are the only places in our society where we are learning diversity first hand (2003, p. 13).

Overall, for any demographic, the downtown will create a culture of participation for the region, as it is the centralized public space and a place that citizens have access to and ownership over.

**The Downtown as Residential Area.** The downtown caters to a type of person. By life-stage and by values, culture and politics, the downtown constitutes an important lifestyle market. “This tension is perhaps best captured by David Brook’s two iconic American characters, the cappuccino-drinking urban ‘bourgeois-bohemian’ (‘bobo’ for short) and suburbia’s ‘patio man’” (Florida, 2009a, p. 93). Young professionals look for different things in a city than do families with children. Belleville’s decision-makers should be considering how this implicates to built form. As Florida recites:

> For singles, who go out to meet new people and make friends, we use indices of restaurants and bars, and of arts and cultural establishments…the things that matter to most families with children are good schools and safe streets, so we use indices of the overall crime rate and student-teacher ratio…for young professionals establishing their careers, we use average commute time and wage-growth for knowledge-based and creative occupations (Florida, 2009a, p. 228).

The suburbs, by life-stage, serve an important function, but the qualities of downtown are conducive to supporting the lifestyles of young professionals, recent college grads or even retirees. Further, the typically suburban life stage (i.e., offering single family dwelling housing and related lifestyle amenities) could be shrinking, as the birth rate
has dramatically declined since the 1960s (See Appendix A, Figure A-3) and women are having children later on in life (CTV, 2005; Statistics Canada, 2008a). Young knowledge workers, the leaders of tomorrow, look for places to live and work that allow access to the type of lifestyle attractions a successful downtown typically offers. As stated in the *Globe and Mail* (2011):

Michael Emory, president of Allied Properties, says that the era when office developers fled to the suburbs in search of cheaper land and lower taxes is ending. Why? Because the smart, younger people that companies most want to attract and keep like to work in the central city, where they can enjoy the bright lights and avoid long commutes. “What the current generation seems to want is the opportunity to live, work and play in the inner city,” says Mr. Emory (Gee, 2011).

**The Downtown as Employment Centre.** The downtown provides a physical environment that is conducive to economic growth and attractive to knowledge-based businesses. In 2002, Gertler et al. concluded that for Ontario’s city-regions to strengthen their competitiveness in the knowledge economy they “ought to reinforce and strengthen their urban character by using planning tools that encourage higher-density growth, diverse, mixed-use urban redevelopment, and the preservation and accentuation of authentic, distinctive neighbourhood character” (p.25). Further, Filion et al. (2004) found that of the few North American smaller metropolitan regions identified as having healthy downtowns, it was also these places that figured most prominently with a presence of the creative class (Filion et al., 2004). For instance, Kingston ranked high in its proportion of talent (Figures 4-1 and 4-2), a position that could be attributed to the popularity, positive image and special role of its downtown (8020 Info Inc., 2004; Filion, 2004). In 2010, an article in the *Harvard Business Review* reported that the quality of life problems of the suburbs are increasingly causing businesses to locate in urban neighbourhoods to attract talent:

> These companies are getting a jump on a major cultural and demographic shift away from suburban sprawl. The change is imminent, and businesses that don’t understand and plan for it may suffer in the long run. To put it simply, the suburbs have lost their sheen: Both young workers and retiring Boomers are actively seeking to live in densely packed, mixed-use communities that don’t require cars—that is, cities or revitalized outskirts in which residences, shops, schools, parks, and other amenities exist close together. “In the 1950s, suburbs were the future,” says University of Michigan architecture and urban-planning professor Robert Fishman, commenting on the striking cultural shift. “The city was then seen as a dingy
environment. But today it’s these urban neighborhoods that are exciting and diverse and exploding with growth (Wieckowski, 2011).

Coupled with the attractive quality of life advantages the downtown built form can offer a business or aspiring business, the “people meeting people” environment of a downtown is the type modern industry thrives in. It is conducive to the idea exchange and creativity that is central to the process of innovation (Florida, 2009a; Martin Prosperity Institute, 2009b, Wieckowski, 2010).

Gertler (2001) stated that what is truly defining capitalism of today is how knowledge and learning create economic wealth. In his 2001 work, he concludes that the social character of a city determines its overall economic success: “this means that the decisions we make which shape the social character of our cities will also have direct consequences for our overall economic well-being” (Gertler, 2001, p. 120). To expand on this point, Jane Jacobs (2005) says social, spatial, and economic diversity is key to a creative urban form, and advocates for compact, pedestrian-oriented environments, short blocks, a mix of old and new buildings, and a mix of people of different socioeconomic status; in other words, an environment similar to what Belleville's downtown offers (Hospers & van Dalm, 2005). Modern industry businesses are increasingly likely to locate in a downtown environment. How efficient it is for Belleville to have a downtown largely intact, and with the potential to develop the social character that will enhance economic prosperity. The downtown is the resource to develop a quality of place that generates economic growth. It is where power in talent attraction and retention will be operationalized. Remembering Fordism, the downtown is the means to rally the institutional ensemble (laws, rules), cultural norms and social relationships that will allow Belleville’s economic prosperity in the knowledge economy. This is simply the nature of capitalism.

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10 He makes three points about the characteristics of today’s firms that necessitate the city: first, “competition between firms is increasingly being waged on the basis of the qualitative characteristics of products (goods or services), and the ability to bring new or improved products to the marketplace quickly”; second, “a very large and growing proportion of innovation occurs through the process of interaction among economic players”; third, “intangible assets (i.e. knowledge) have attained unprecedented levels of importance in the determination of competitive success for firms” (Gertler, 2001, pp. 123-124).
6 Conclusion

Broadly, this report has been about informing thought on Belleville as a place. “Fitting the jigsaw piece” implies a requirement, and as such this report should be viewed in a positive light for the potential opportunity for Belleville to strengthen its role in the knowledge economy. In benchmarking Belleville’s relative performance on development indicators, its character was found to be similar to other smaller Canadian cities and distinct from larger urban centres. There were a few broad-based implications of the results, including: that Belleville should be improving its connective fiber to other cities particularly within the “Tor-Buff-Chester” mega-region; it should recognize the importance of international immigration and the detriments of being a “constrained space”; and, Belleville should focus on managing its inflows and outflows of youth. Collectively, these revolved around that Belleville should in no way attempt to simulate values, but should be adopting its own development model: one that works to both attract creative capital and builds on the distinct advantage of quality of life. The latter was expressed through the notion for small city solutions to big city problems related to agglomeration and congestion.

Notable enough that it merited its own section in this report, Belleville’s downtown was argued on several dimensions as a key resource to strengthen Belleville’s wellbeing in the knowledge economy. This was expressed through four development themes: Downtown as an Attraction, Downtown as 8 – 80 district, Downtown as Residential Area, and Downtown as Employment Centre. Belleville’s downtown was argued to have integrative power that could be harnessed to improve knowledge worker and firm attractiveness-retentiveness and improve overall quality of life for residents. Of particular emphasis, the downtown provides the civic infrastructure and is of an urban character that could attract and retain knowledge workers and facilitate economic growth for knowledge-based businesses. However, it was also acknowledged that there is a hierarchy of needs involved in the regeneration of a downtown and that built form is only one of many important considerations. Currently, Belleville’s downtown is under-appreciated: “The decline over many years has adversely impacted the area’s
aesthetic quality, urban vitality and perceived image. Fortunately, Downtown Belleville’s treasured assets remain intact and it is well positioned to seize upon emerging opportunities to revitalize and transform its image” (Office for Urbanism, 2006b, p. 1).

Future research and action to develop Belleville’s role in the knowledge economy will be to articulate and operationalize a distinct development model for Belleville’s downtown. While this should be encouraged, it should be carefully directed. Urban creativity strategies have been highly contagious over the past decade, but some have been poorly planned out, putting a knife-edge between regeneration and decline. Of course, the theory is still relatively new, but since 2002’s Rise of the Creative Class, much literature has emerged aimed at improving the approach to attract and retain talent and business in the knowledge economy (See Storper & Scott, 2009; Scott 2010a; Scott, 2010b). Further, Greg Baeker’s (2010) Rediscovering the Wealth of Places or 2011s “Municipal Planning and Financial Tools for Economic Development” by the Ministry of Municipal Affairs and Housing are handbooks to guide decision making and planning for the knowledge economy.

It should be noted that a limitation of this study and a potential next step is to use interview(s) as a source of evidence to validate and enhance the reliability of the report’s findings. As a complement to the performance analysis, interviews could have illustrated, in greater depth, the implications of the findings. However, due to trouble coordinating deadlines interviews were not conducted. Lastly, there is a potentially limitless amount of development indicators or any number or interesting combination of cities that Belleville’s performance could be assessed upon. The use of further indicators and benchmarking assessments should be considered as a means to better understand Belleville’s role in the knowledge economy.
7 References


Florida, R. (2009a). Who’s your city? How the creative economy is making where to live the most important decision of your life. Toronto: Vintage Canada.


## Appendix A

<table>
<thead>
<tr>
<th>Type of knowledge worker</th>
<th>Description</th>
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| Professional occupations | • Auditors, accountants and investment professionals  
• Human resources and business service professionals  
• Physical science professionals  
• Life science professionals  
• Civil, mechanical, electrical and chemical engineers  
• Other engineers  
• Architects, urban planners and land surveyors  
• Mathematicians, systems analysts and computer programmers  
• Physicians, dentists and veterinarians  
• Optometrists, chiropractors and other health diagnosing and treating professionals  
• Pharmacists, dietitians and nutritionists  
• Therapy and assessment professionals  
• Judges, lawyers and Quebec notaries  
• Policy and program officers, researchers and consultants  
• University professors and assistants  
• College and other vocational instructors  
• Secondary and elementary school teachers and counselors  
• Librarians, archivists, conservators and curators  
• Writing, translating and public relations professionals  
• Creative and performing artists |
| Management occupations | • Legislators and senior management  
• Administrative services managers  
• Managers in engineering, architecture, science and information systems  
• Sales, marketing and advertising managers  
• Managers in financial and business services  
• Managers in communication (except broadcasting)  
• Managers in health, education, social and community services  
• Managers in public administration  
• Managers in art, culture, recreation and sport  
• Managers in primary production (except agriculture)  
• Managers in manufacturing and utilities |
| Technical occupations | • Technical occupations in physical sciences  
• Technical occupations in life sciences  
• Technical occupations in civil, mechanical and industrial engineering  
• Technical occupations in electronics and electrical engineering  
• Technical occupations in architecture, drafting, surveying and mapping  
• Other technical inspectors and regulatory officers  
• Transportation officers and controllers  
• Nurse supervisors and registered nurses  
• Medical technologists and technicians (except dental health) |

Note: Occupation descriptions are based on the 1991 Standard Occupational Classification.

**Figure A-1: Knowledge Workers by Occupational Stream, with Description.**
(Source: Baldwin & Beckstead, 2003, p. 13)
Figure A-2: Downtown Belleville (2006). Downtown Belleville includes both sides of the Moira River, extending south to include the waterfront, as far north as Memorial Park, as far west as Hwy 62, and as far east as Charles Street.
(Source: Office for Urbanism, 2006a)
Figure A-3: Total Fertility Rate, Canada and the United States, 1940-2000.
(Source: Statistics Canada, 2008a from http://www.statcan.gc.ca/kits-trousses/issues-enjeux/c-g/c-g1-eng.htm.)

Note: The solid black horizontal line denotes the natural replacement population level of 2.1 children per woman.