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## Attracting and Retaining the Highly Skilled in Medium-sized City-regions of Ontario

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Geography

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Attracting and Retaining the Highly Skilled in Medium-sized City-regions of Ontario

(Spine Title: Attracting and Retaining the Highly Skilled in Ontario)

(Thesis Format: Monograph)

by

Kyle Clemens

Graduate Program in Geography

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts

The School of Graduate and Postdoctoral Studies  
The University of Western Ontario  
London, Ontario, Canada

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## ABSTRACT

Canada's medium-sized cities have recently experienced a significant net loss in human capital growth attributed alone to internal migration. Subsequently, the largest cities in the country have received a net growth in human capital in part due to internal migration. Using mixed qualitative methods in the form of a policy document analysis and in-depth key informant interviews, this study aims to understand how and to what extent institutional relations are leveraging post-secondary education institutions in medium-sized city-regions of Ontario to attract and retain the highly skilled. The results of this study reveal that limited collaboration to leverage the post-secondary education institutions to attract and retain the highly skilled exists. Accordingly, post-secondary education institutions are largely unresponsive to attracting the highly skilled into their host communities. This study challenges a new way of thinking about how to utilize post-secondary education institutions in the knowledge economy to promote economic development.

**Keywords:** Human Capital, Highly Skilled, Institutions, Post-secondary Education Institutions, Economic Development, Attracting and Retaining

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## **Chapter 1**

### **Introduction**

#### **1.1 Chapter Overview**

This chapter overviews the 1) study context, 2) research problem, 3) research objectives, 4) economic landscape of cities in Ontario, 5) research design, 6) study results, and 7) summarizes the following chapters of the thesis.

#### **1.2 Study Context**

Scholars and policy makers have identified human capital or the highly skilled as the key driver of the knowledge economy, through which a region can establish a competitive advantage. This way of thinking is not new, as scholars such as Edward Ullman (1958), Jane Jacobs (1969), and Robert Lucas Jr. (1988) have all documented the importance of innovation, creativity, and human capital in the promotion of economic development. Throughout the past decade, literature about economic development and geography has been dominated by the thinking of Richard Florida who developed the creative class theory. Popular amongst policy makers, the creative class theory, which dramatically reshaped urban and economic policy particularly within the context of city-regions, is based upon the premise that talent, technology, and tolerance are all essential ingredients to ensure a city-region's economic development and prosperity. Talent, typically measured via educational attainment is noted to be the key driver of economic development in the knowledge economy (Florida, 2002b). Scholars such as Martin and Sunley (1998), Simon (1998), Florida (2002b), Berry and Glaeser (2005), and Florida et al., (2010) have studied the geography of human capital and acknowledge that the

concentration of human capital contributes to a region's economic development. More recently Florida et al., (2010) further posited that human capital and creative occupations yield a positive correlation with regional incomes in Canada. Consequently, policy makers have openly embraced the creative class theory as a means to design urban and economic development policies to attract the highly skilled to their city-regions.

Scholars have frequently documented the benefits of post-secondary educational institutions in the knowledge economy, as they naturally act as a magnet to attract the highly skilled (see Florida, 1999; Mellander & Florida, 2006; Coenen, 2007; Florida et al., 2010; Darchen & Tremblay, 2010). However, Florida et al., (2010) further analyzed the effects of universities in Canada and found a weak association between universities, regional incomes, and technology. According to them, this was because of the high rate of migration of the highly skilled out of the region. Therefore, Florida (2002b, p.292-293) asserts that the onus is on the local city-regions that host universities to ensure that they possess the capacity to utilize the innovation, technologies and highly skilled that the university has attracted and produced. Furthermore, scholars have documented that institutional collaboration can increase a region's competitiveness while fostering innovation in the knowledge economy (see Leibovitz, 2003; Etzkowitz & Dzisah, 2008; Smith & Bagchi-Sen, 2010). However, scholars have yet to merge the geography of talent and institutional literature to evaluate how institutional relations between post-secondary educational institutions and government can be leveraged to attract and retain the highly skilled.

### 1.3 Research Problem

This section overviews the problem that Canada is experiencing with regard to the migration of highly skilled individuals within the urban hierarchy. Medium-sized cities across Canada have been most impacted by this phenomenon, consistently losing highly educated and highly skilled labour through internal migration to the nation's larger cities (See *Figure 1*). Specifically, medium-sized cities experienced a 35 percent net reduction in human capital growth between 1996 and 2001 due to internal migration alone. Interestingly, the net migration loss of human capital in small and medium-sized cities is most prominent between the ages of 20 – 34 (See *Appendix B*). This naturally poses demographic and economic concerns for smaller cities within Canada (Backstead et al., 2008; Brown et al., 2010).

**Figure 1: Components of degree holder growth, numbers and percent, by urban-rural class, 1996 to 2001**

Urban and rural classes	Change from 1996 to 2001	Components					
		Net migration		Net immigration		<i>In situ</i>	
Degree holders (percent share of urban-rural class)							
Large	497,776 (100)	38,224 (8)	209,159 (42)	250,392 (50)			
Medium	67,979 (100)	-23,830 (-35)	12,799 (19)	79,010 (116)			
Small	55,781 (100)	-12,545 (-22)	4,656 (8)	63,670 (114)			
Rural	47,694 (100)	-1,849 (-4)	1,875 (4)	47,669 (100)			
<b>Canada</b>	<b>669,230 (100)</b>	<b>0 (0)</b>	<b>228,488 (34)</b>	<b>440,742 (66)</b>			

Sources: Statistics Canada, Census of Population, 1996 and 2001.

(Backstead et al., 2008)

*Figure 1* demonstrates that the most significant form of human capital growth amongst all cities in the Canadian urban hierarchy is *in-situ* (place-based) growth. Consequently, the ability of a city-region to attract and retain human capital is vital to the city-region's long-term economic outlook.

Given, the study context (section 1.1) and the significant reduction in human capital growth amongst medium-sized cities within Canada, this study aims to answer:



*How and to what extent are institutional relations leveraging the presence of post-secondary educational institutions to attract and retain the highly skilled in medium-sized city-regions of Ontario?*

## **1.4 Research Objectives**

Based on the question above, this study will incorporate four primary research objectives:

- 1) Examine if the attraction and retention of the highly skilled to the local city-region is a strategic priority for local post-secondary educational institutions and the local economic development institutions, and how and to what extent it is being done.
- 2) Investigate how and to what extent institutions collaborate to achieve goals in their city-region and identify the barriers/factors of success in collaborations.
- 3) Analyze if relations amongst the local post-secondary education institutions, local economic development institutions, and private sector exist with the aim to attract and retain the highly skilled to the local city-region.
- 4) Consider whether institutions believe that institutional collaboration is necessary to attract and retain the highly skilled to the city-region.

## **1.5 Overview of Economic Landscape of Cities in Ontario**

This section offers a brief overview of the economic landscape in Ontario pertaining to medium-sized cities, and provides evidence of an economic restructuring to a knowledge-based economy. Further, this section also provides a rationale for focusing this research in Ontario.

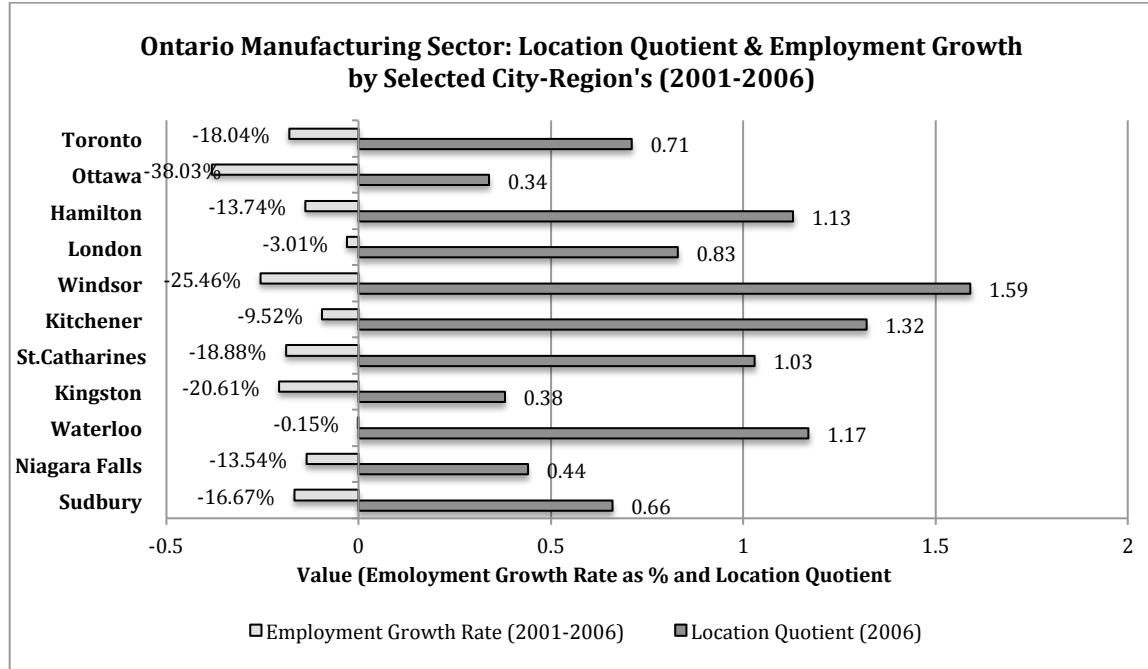
### **1.5.1 Economic Landscape of Cities in Ontario**

As noted by Backstead et al., (2008), medium-sized cities in Canada have experienced a net reduction in human capital growth between 1996 and 2001 of 35 percent due solely to internal migration. On the other hand, the majority of human capital

growth in medium-sized cities is a result of place-based growth. Ontario was selected as an area of focus for this research for three reasons: 1) According to Statistics Canada (2012b), Ontario has a population of approximately 13,373,000, constituting approximately 39 percent of the nation's population, 2) Ontario possesses the largest proportion of city-regions between 150,000 and 500,000 in population (Statistics Canada, 2012a) and 3) a focus on one province helps to control for jurisdictional and geographical differences between provinces and territories.

Within Ontario, many cities are experiencing economic restructuring moving from an industrial based economy to a knowledge-based economy focusing on innovation, and information services. Evidence of this shift is presented in *Figure 2*, as the manufacturing sector of selected cities within the province indicates a significant decline in employment between 2001 and 2006. This is increasingly significant, given that the location quotient of many of these city-regions is well above 1.0, indicating that within the manufacturing sector of the city a greater percentage of individuals are employed in this sector than the provincial average. A location quotient above 1.0 indicates that the city specializes in the manufacturing sector.

**Figure 2: Decline in Ontario Manufacturing Employment**



*Source: (REDDI, 2012)*

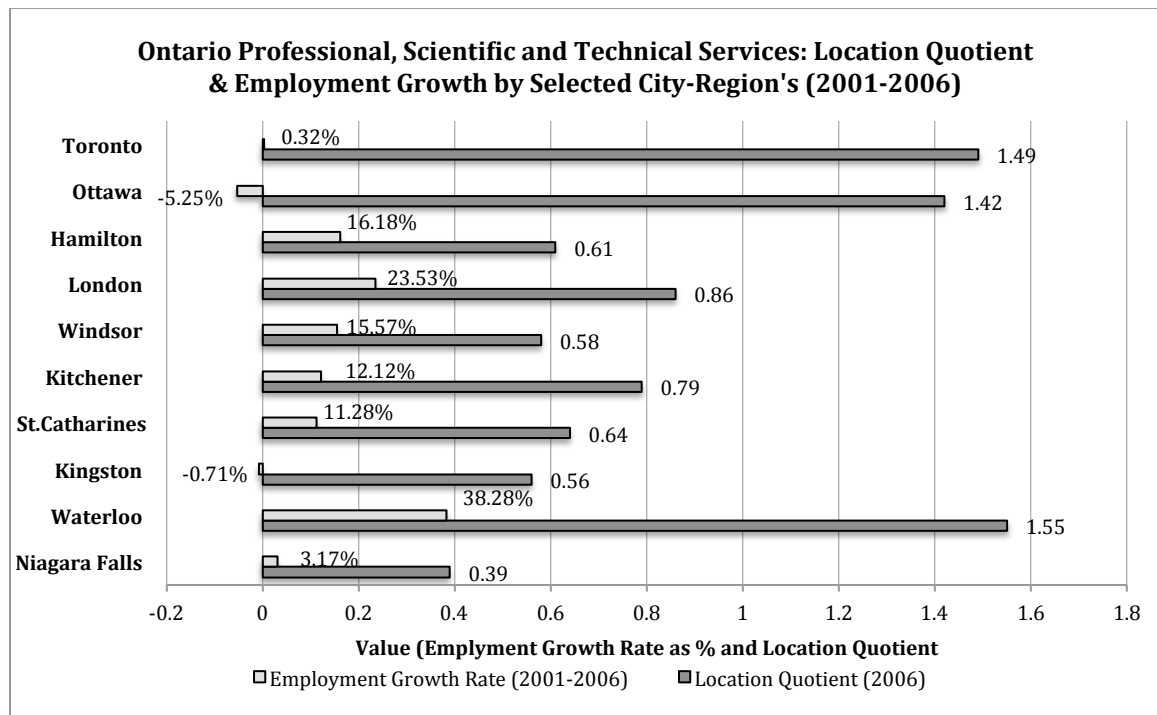
*Location Quotient is a measure of employment strength or specialization and is calculated by percent of local employment in a given sector, divided by the provincial percentage of employment in the same sector. For further information and definitions, please refer to Appendix D.*

The entire province of Ontario during the same time period experienced a 9.15 percent decline in employment within the manufacturing sector (REDDI, 2012). As observed in *Figure 2* every city in Ontario has experienced a decline in manufacturing employment between 2001 and 2006, while nine of the eleven cities experienced a decline in employment surpassing the provincial average. Nearly half of the cities have a location quotient above 1.0, providing further economic concerns for such cities given the large negative employment growth in the sector. Of most concern is the city of Windsor, which provides the most sector specialization of the cities in the graph and is experiencing one of the largest declines in employment. It is worth noting that cities such as Ottawa and Kingston appear to be experiencing large declines in manufacturing employment as well. However, these cities rely little on the manufacturing sector, as a

small percentage of their workforce is employed in the sector. Thus, the decline in employment is inflated.

*Figure 3* further demonstrates Ontario's economic transition to a knowledge-based economy as the province experienced an 8.97 percent growth in employment within the professional, scientific, and technical services sector in the period 2001-2006 (REDDI, 2012). Employment growth in nine of the eleven cities is positive, while the location quotients provide further evidence of the transition. Many of the cities, particularly those that yield high location quotients in manufacturing have much lower location quotients or specialization in professional, scientific, and technical services.

**Figure 3: Increase in Knowledge-based Employment**



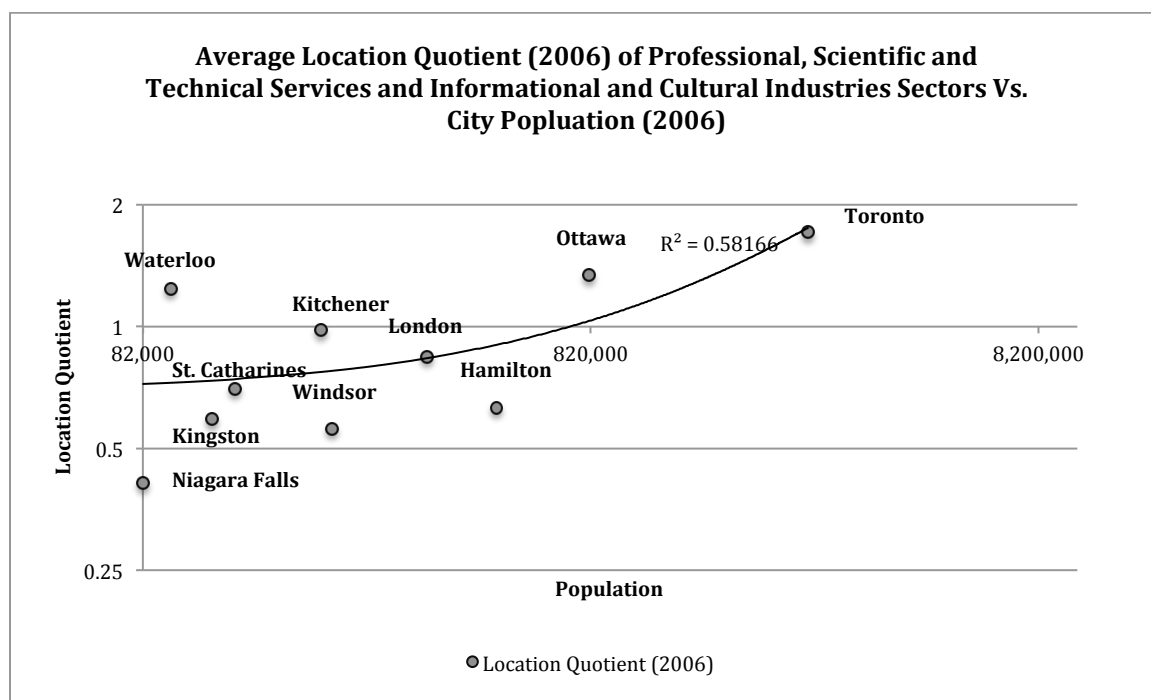
*Source: (REDDI, 2012)*

*For further information and definitions, please refer to Appendix D.*

The data in *Figure 3* also demonstrates that the larger cities such as Ottawa and Toronto have distinct specializations in scientific, professional, and technical services.

This vindicates the results found by Backstead et al., (2008) as much of the growth and migration of human capital is taking place in Canada's largest cities. The only medium-sized city performing favorably in this sector other than the largest centers is Waterloo. This is likely to be due to the high-tech cluster that has formed in the region since the formation of Research in Motion (RIM). *Figure 4* further highlights the selected cities' average location quotient for information and cultural industries as well as professional, scientific, and technical services by city population.

**Figure 4: Ontario's Largest Cities Possess Greater Knowledge Specialization**



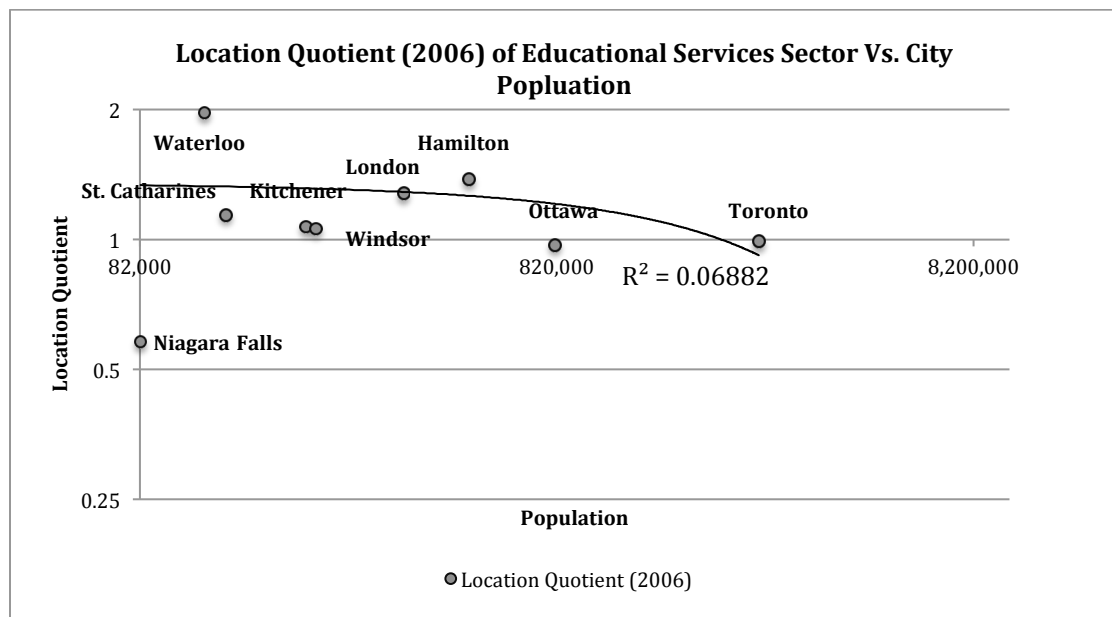
Sources: (REDDI, 2012) & (Statistics Canada, 2012a)

For further information and definitions please refer to Appendix D. Population data was collected from Statistics Canada. Please note the population data used in this chart was based upon the city population, not the metropolitan region.

The average location quotient of both knowledge sectors: professional, scientific, and technical services and information and cultural industries demonstrates that there is an association between knowledge-based employment and city size in Ontario. Given the method by which the location quotient is formulated, *Figure 4* also emphasizes that the

largest cities in Ontario provide significantly more employment opportunities in the professional, scientific, and technical services and information and cultural industries. Waterloo is again an outlier. However, if Waterloo were excluded from the chart, the association between the knowledge sectors location quotient and city-size would increase significantly to a regression ( $R^2$ ) value of 0.759. As one would expect, there is almost no association between city size and the educational services sector amongst the selected cities in Ontario as *Figure 5* demonstrates.

**Figure 5: Education Services Sector Specialization by City-size**



*Sources: (REDDI, 2012) & (Statistics Canada, 2012a)*

*For further information and definitions please refer to Appendix D. Population data was collected from Statistics Canada. Please note the population data used in this chart was based upon the city population, not the metropolitan region.*

Interestingly, city specialization in educational services appears to have limited impact on knowledge-based employment specialization as is emphasized in *Figures 3* and *4*. Given that educational services attract, train, and produce human capital, it is

surprising that a specialization in this sector does not show any significant form of spillover into employment specialization within the knowledge-based sectors discussed.

## **1.6 Research Design**

To satisfy the research objectives (Section 1.4), the research design employs mixed qualitative methods. In order to understand how and to what extent institutional relations are being leveraged to attract and retain the highly skilled in medium-sized city-regions in Ontario, a policy document analysis was conducted on seven select city-regions. The city-regions were selected based upon their size and the presence of post-secondary educational institutions. Thus, the selected city-regions in this study are: Windsor, St. Catharines-Niagara, London, Kitchener-Waterloo, Hamilton, Kingston and Sudbury. Further details pertaining to the selection of the city-regions and the subsequent rationale can be found in Chapter 3 and *Table 1*. The policy documents used were high-order strategic policy documents and were collected from the city-regions' local economic development institutions and local post-secondary education institutions (both College and University). Indicators were developed with the aim of satisfying the research objectives in section 1.4 and answering the overarching research question posed in section 1.3. The indicators used in this study are displayed in *Table 3*. The documents were manually analyzed and the results will be further discussed in Chapter 4 (See *Appendix E* for the complete policy document analysis).

To further validate and complement the findings of the strategic policy documents, a critical case study was performed on the city-region of London, Ontario. The case study consisted of interviews with five key informants, who hold relevant positions within the London Economic Development Corporation, Western University,

and Fanshawe College. Details including the rationale for the selection of the key informants and the city-region of London, Ontario are presented in Chapter 3. The interviews were analyzed based upon emerging themes from the interviews conducted. Moreover, the interview guide and questions are presented in *Appendix A*, all of which were designed with the aim to achieve the research objectives of the study, as presented in section 1.4.

### **1.7 Study Results**

The results of this study reveal that there is only limited collaboration amongst the local post-secondary education institutions in the medium size city-regions towards attracting and retaining the highly skilled. More specifically, the policy document analysis conducted in this study provides empirical evidence that in general it is not a strategic priority for post-secondary education institutions to attract and retain the highly skilled within their host regions. In contrast, all local economic development institutions from the selected city-regions stated that attracting and retaining the highly skilled was a strategic priority for them. However, it was observed that institutional relations to achieve this objective were established by only a few economic development institutions and just one college from the city-regions studied. On the other hand, all post-secondary educational institutions and local economic development institutions agreed that it was a strategic priority to promote relations between the post-secondary education institutions and the local community in which they reside.

The critical case study of London, Ontario provided similar results. All informants representing the London Economic Development Corporation, Western University, and Fanshawe College stated that attracting and retaining the highly skilled



was significant to local economic development. Interestingly, there was no consensus pertaining to how the city-region of London was actually performing in terms of attracting and retaining the highly skilled. All informants felt that institutional collaboration to achieve goals in London is very significant, while noting that leadership, communication and finding mutual benefits in cooperation were the most significant factors encouraging collaboration between institutions. All informants believed that institutional collaboration between academia, government, and industry was appropriate to attract and retain the highly skilled to the city-region of London. Subsequently, all informants with the exception of one informant from Western University felt that their institution had a role in attracting and retaining the highly skilled to the city-region of London.

The results of this study provide significant contributions to the literature by providing empirical evidence of the role of post-secondary education institutions in attracting and retaining the highly skilled to their host city-regions. Further, this study has merged the institutional literature with the human capital literature to provide empirical evidence pertaining to city-region institutional governance. This study contributes to an underexplored aspect of the literature as it focuses on the medium-sized city-regions, which as Brown et al., (2008) documented are experiencing significant challenges regarding human capital migration. Moreover, the study addresses scholars' concerns regarding the lack of attention that smaller city-regions have received particularly in light of the creative class thesis (e.g., Lewis and Donald, (2010) and Sands and Reese, (2008)). Finally, this study contributes to local and provincial public policy in terms of identifying

the underutilized role of post-secondary education institutions in promoting economic development, in an attempt to close the gap between marginalized city-regions in the knowledge economy.

## **1.8 Chapter Summaries**

The thesis is comprised of six chapters. Chapter 2 provides a detailed review of the literature relevant to this study. The literature review provides the theoretical foundation for the study, economic geography of talent, economic impacts of post-secondary education institutions and institutional literature. The third chapter focuses on the selection of city-regions analyzed, rationale for the study period, and selection of policy documents, key informants, and justification for the studies design.

The fourth and fifth chapters present the results of the study. Specifically, the fourth chapter presents the results of the policy document analysis and the first three objectives of this study, which are to: 1) Examine if the attraction and retention of the highly skilled to the local city-region is a priority for local post-secondary education institutions and the local economic development institutions, 2) investigate how and to what extent institutions collaborate to achieve goals in their city-region and identify the barriers and factors for successful collaborations, and 3) discover if relations amongst the local post-secondary educational institutions, local economic development institutions and private sector exist with the aim to attract and retain the highly skilled to the local city-region. The fifth chapter provides the results from a critical case study through key informant interviews and concludes the first three objectives of this study as well as the fourth: to

understand if institutions believe that institutional collaboration is necessary to attract and retain the highly skilled to the city-region. The sixth chapter presents the contributions of this study and examine whether the key issues that emerged from this study correspond to the relevant literature reviewed in Chapter 2. Finally, the limitations of this study and recommendations for further research are presented.

## **Chapter 2**

### **Literature Review**

#### **2.1 Introduction**

This chapter reviews the literature relevant to this study and provides insight into the gaps within the literature pertaining to the role of post-secondary educational institutions and institutional relations to attract and retain the highly skilled. Section 2.2 highlights the significance of highly skilled workers in the knowledge-based economy. Section 2.3 reviews the predominant theory within the economic development literature pertaining to labour force development, the creative economy, and the geography of talent. Section 2.4 reviews the empirical concerns regarding city-region size, emphasizing the discrepancies within the literature in applying such theoretical frameworks to smaller city-regions. Section 2.5 reviews the literature of post-secondary educational institutions, stressing the need to evaluate their roles further within the economic development literature. Finally, section 2.6 introduces and reviews the institutional literature, providing insight into the links between the institutional and human capital economic development literatures.

#### **2.2 Theoretical Framework**

Recently, developed economies have restructured themselves from industrial based to what is now termed the 'knowledge economy'. Advanced economies have progressed from generating economic growth by means of manual labour to human capital and innovation (Florida, 1995). The specific drivers of this shift are unclear, however scholars and policy makers widely accept that a region's economic growth and

success is largely dependent upon knowledge and innovation (O'Hagan & Rutland, 2008). While some scholars have noted that technology has led to the 'death of geography', Florida (1995) aptly points out that geographical regions are still essential in the new global age of knowledge-based development. He highlights the development of 'learning regions', where a geographical region retrieves and stores knowledge and possesses infrastructure that fosters the movement of knowledge leading to innovation (Florida, 1995). Knowledge can be stored in various forms, but Mathur (1999) points out that knowledge exists in both capital goods and human beings, while only humans have the ability to create new knowledge. The discussion of knowledge and innovation in economic geography is not new, as over half a century ago, Ullman (1958) had put forward the claim that the geography of development is significantly reliant upon humankind's institutions, the tasks conducted, and innovation. Ullman (1958) further suggested that regions that innovate and possess decision-making power would always possess a competitive advantage. Similarly, Jane Jacobs suggested that to prevent a stagnate economy; creativity and innovation are needed to create new work (Jacobs, 1969, p. 78). Jacobs further decried the lack of attention given to the 'division of labour', which contributes significantly towards new services and goods in the marketplace (Jacobs, 1969, p. 84). Building on this, Jacobs (1969, p. 58) argues that in an economy that produces various new goods and services, the growth in new divisions of labour far outpaces the old division of labour and makes the old economy obsolete.

Economist Robert Lucas Jr. (1988) placed great emphasis on human capital, measured by educational attainment, which he introduced in his economic growth model. His findings accentuate that human capital is imperative for economic growth, as it not

only increases labour productivity, but also increases the productivity of physical capital (Lucas Jr., 1988). The endogenous growth theory too emphasizes the importance of human capital and technology in generating increasing economic returns, while acknowledging that human capital and technology do not develop evenly across a geographical landscape (Martin & Sunley, 1998). In the last couple of decades, scholars began analyzing the geographical distribution of human capital. For instance, Curtis Simon (1998) found a positive relationship between employment growth and average levels of human capital in city-regions across the U.S. between 1940 and 1986. This led Simon to conclude that educated individuals are most effective in the creation and implementation of knowledge (Simon, 1998). The consensus amongst scholars that the presence of human capital naturally creates employment opportunities also supports Jane Jacobs' (1969) claim that innovation and creativity generate new work. The ability of a region to accumulate human capital thus becomes increasingly significant. Such findings also vindicate Berry and Glaeser's (2005) study of city-regions in the United States, and their assertion that city-regions with higher human capital levels have a tendency to attract more highly skilled individuals over time. Similarly, Faggian and McCann (2006) argue that a region's ability to innovate actually plays an important role in encouraging human capital, in particular university graduates to seek employment within a particular region. The notion that human capital seeks innovative regions is partly related to the conceptualization of knowledge clusters. As the human capital of a nation seeks job opportunities in innovative regions, theoretically the demand for firms to locate in that region should also increase. This has led scholars to question if human capital attracts

employment opportunities. On the other hand, do employment opportunities attract human capital?

### **2.3 Geography of Talent**

A study done by Partridge and Rickman (2002) provides insight into the debate concerning employment opportunities and human capital and reveals that on an average people tend to follow employment prospects in the United States. Partridge and Rickman (2002) acknowledge that place and geography play a significant role in resolving the latter debate, as they found that employment opportunities in the Sun Belt tend to follow the labour, whereas in the Rustbelt, Farm Belt and the Energy States labour migrates towards the employment opportunities. Bramwell et al. (2008) further contribute to this debate in the Canadian context revealing how industry consistently provided Waterloo's human capital stock in computer science engineering, a notable competitive advantage to locate in the city. Such findings support the assertion made by Florida (2002b, p. 283) that while commercial enterprises do remain important, they no longer call the shots and are increasingly having to locate and set up their businesses based on the concentration of talented and creative people in the region. However, while the literature on this subject sheds some light on the debate; it still does not provide a general framework that can be applied to specific regions. The debate is largely place-based and location dependent. The ability of a geographical region to acquire human capital is largely related to the region's ability to innovate and consequently develop decision-making power, which Ullman (1958) argues is necessary to establish a competitive advantage particularly given the realities of uneven development across the geographical landscape. It must be agreed that

the role of highly skilled individuals in the promotion of economic development has been largely documented, while the ability to attract and retain such individuals has become the focus of the recent literature largely led by Richard Florida's Creative Class theory.

## **2.4 The Creative Class**

Richard Florida, the founder of the creative class thesis, in his seminal work suggests that the new geography of creativity and its effects on economic outcomes is reliant upon talent, technology, and tolerance. The theory posits that all of the "three t's" are necessary but are insufficient on their own to attract creative people, generate innovation and prompt economic growth. However, while Florida proposes that the underlying driver of economic growth is talent (Florida, 2002b, p.249), other scholars have noted the importance of amenities in attracting and retaining the highly skilled in a particular city-region (Glaeser, 1998; Glaeser et al., 2001; Florida 2002a; Clark, 2003; Shapiro, 2006). This has been a primary focus of policy leaders and urban planners in promoting local economic development over the past decade. The creative class theory builds upon such empirical evidence and further refines them by introducing new variables for measurement. Florida (2002a) took steps to understand the factors that attract human capital and subsequently the effects the highly skilled have on the high technology industry and regional incomes. Florida's findings suggest that the highly skilled are attracted to diversity and tolerance (Florida, 2002a) and that human capital is more strongly drawn by diversity than culture, climate, or amenities. Specifically, regional development was explored in the Canadian context and Florida et al. (2010) indicated that both creative occupations and human capital (measured by educational



attainment) yielded strong positive correlations with regional incomes. This confirmed previous findings within the literature that human capital, creativity, and innovation generate economic growth (Lucas, 1988; Simon, 1998; Berry and Glaeser, 2005; Jacobs, 1969; Ullman, 1958). In addition, Florida et al. (2010) refined the theory asserting that tolerance plays the most important role in attracting human capital, and argued that this is an indicator for regional income. They further suggested that while universities are influential in developing human capital it is wrong to assume that they have an equal impact on regional income or technology. Florida in particular maintains that the presence of a major research university is a basic infrastructure component of the creative economy, more significant than traditional forms of infrastructure and is a major potential source of competitive advantage (Florida, 2002b, pp.291-292). However, he felt that though the university is a key institution, its role as an engine of regional economic development has been widely misunderstood, as the institution is not only a producer of invaluable research that can be utilized by the firms in the region, but also provides a progressive environment through tolerance and acts as a magnet for attracting talent. Consequently, the university is a necessary but insufficient condition for generating high tech firms and growth, since it is up to the host communities of the institutions to ensure that there is capacity to absorb and utilize the innovation, technologies, and talent that the university has attracted and produced (Florida, 2002b, pp.292-293). This has yet to be empirically assessed. Such arguments in the literature are suggestive that post-secondary education institutions have a role in attracting and retaining the highly skilled to their host communities and that city-regions are able to utilize the post-secondary education institutions as a source of competitive advantage. After further analysis, Florida et al.

(2010) found a weak association between the university, regional income, and technology in Canada and suggest that this is due to the flow of talent between regions, since regions that often produce talent face difficulties in retaining such talent. Contrary to Florida et al. (2010), in Sweden, universities were found to be the most significant variable relating to technology and regional development and are considered central hub institutions in the knowledge economy (Mellander & Florida, 2006). The discrepancy between Canada and Sweden is not explained, but re-iterates the importance of place in understanding the geography of development. As Lewis and Donald (2010) aptly point out, the way in which Florida theorizes, quantifies, and applies the creative class theory tends to marginalize smaller Canadian city-regions, which is further supported by Bradford (2004).

## **2.5 City-region Size**

While the creative class theory has been widely accepted, many scholars question the applicability of such a theory for smaller urban city-regions, given that larger cities naturally have the assets to attract knowledge workers (Peck, 2005; O'Hagan & Rutland, 2008; Lewis & Donald, 2010). Florida (2002b, pp. 263-264) attempted to address the relevance of the creative class theory to smaller city-regions as he analyzed regions with populations between 250 thousand and 2.2 million in the United States of America. Florida's results suggest that immigration is the single most important factor for growth in such small and medium-sized city-regions, and assert that the percentage of foreign-born within a city-region is the only consistent predictor of the population growth of smaller regions. He consequently recommended that smaller regions should adopt

strategies to make themselves more attractive to immigrants. However, in the Canadian context smaller city-regions do not always possess the resources to provide the necessary services that large populations of newly arrived immigrants require when settling in Canada. Furthermore, Florida et al. (2011) aptly noted that the wage return for analytical and social intelligence skills has increased over time, while wage returns for physical skills have declined. Such findings are significant given that Florida et al. (2011) also found that large cities reward analytical and social intelligence skills to a higher degree, while smaller city-regions rely more on physical skills within their local labour force. Goldstein and Drucker (2006) further note the importance of the size of city-regions as the impact of universities on regional economies is greater with small and medium-sized city-regions. Evidence of a growing divide within the Canadian urban hierarchy was provided by Bolton and Breau (2011) who found that city-size is increasingly an important determinant of the inequality in Canadian metropolitan earnings. Lepawsky et al. (2010) also demonstrated that city-region size was important through a study that they conducted in St. John's, Newfoundland, asserting that the critical mass of population was a significant factor in determining the success of attracting and retaining talent. Such results partially explain the discrepancies other scholars have noticed regarding the applicability of the creative class theory (Lewis & Donald, 2010; Peck, 2005). The discourse pertaining to city-region size remains increasingly significant, given that smaller city-regions have adopted urban policies guided by the creative class theory and literature relating to amenities.

### ***2.5.1 City-region Size: Amenities***

There has been a large-scale debate in recent years as to whether the highly mobile/highly skilled move to a location due to available amenities or employment opportunities. The former is strongly advocated by scholars such as (Glaeser, 1998; Glaeser et al., 2001; Clark, 2003 and Shapiro, 2006). This debate directly applies to the size of a city-region, as larger city-regions inherently have more capital to invest in urban beautification and amenity related initiatives. Hansen and Niedomysl (2008) provide evidence from Sweden revealing that the highly skilled are more likely to seek employment opportunities rather than amenities in deciding upon a location for employment. Darchen and Tremblay (2010) confirmed these findings as they performed a case study of recent graduates in Ottawa, Ontario. Such findings provide hope for smaller city-regions who cannot sustainably compete with the amenities and services provided by the nation's largest city-regions due to economies of scale. In contrast, various scholars including Clark and Lloyd (2001) argue that by providing public amenities and leisure activities a city-region can attract highly mobile talent to drive economic growth. Glaeser et al., (2001) further accentuate that high amenity city-regions have grown faster than low, and argue that a city-region's attempt to maintain and grow the manufacturing sector is useless and even potentially harmful due to the negative amenities associated with the sector. However, Glaeser and Saiz, (2003) found that skilled cities are able to absorb economic shocks better than less skilled cities and are growing because they are becoming more economically productive, not because they are attractive places to live. Interestingly, Jarmon et al., (2012) provide evidence that local economic development institutions that focus on initiatives to promote quality of life have no effect on a city-

region's employment, but found a positive relationship with industrial development initiatives. Moreover, Storper and Scott (2009) noted that amenity driven initiatives proposed within the literature are themselves worthwhile, but not likely to have an effect on per capita income or urban growth. They further argue that the popular amenity based theories fail to pinpoint sources of urban dynamism and mistakenly identify amenities as significant drivers of urban growth. Advocating that the implementation of amenity-based theories with the aim of urban growth is ill advised for policy application as the theories fail to address the basic problems of building, sustaining and transforming the production activities of their local labour markets (Storper & Scott, 2009). Whether it is amenities or employment opportunities that are more likely to attract human capital, smaller city-regions within Canada are at a disadvantage, which is exemplified by the findings of Brown et al. (2010).

## **2.6 Post-Secondary Education**

In an attempt to better understand the factors that contribute to the distribution of human capital, various scholars have claimed that universities are integral components of the knowledge economy as they naturally attract students and inherently produce highly skilled individuals (Florida, 1999; Thanki, 1999; Berry & Glaeser, 2005; Mellander & Florida, 2006; Coenen, 2007; Lendel, 2010; Florida et al., 2010; Darchen & Tremblay, 2010). Much of the literature tends to focus on the direct economic impact of post-secondary education institutions with hardly any discussion on the role of institutions in terms of harnessing the economic benefits of the highly skilled. For instance, Glaeser et al., (2001) theorized that universities play a significant role in developing an initial

advantage in human capital for a region. Gertler and Vindorai (2005) support this theory as they note that universities are essential for innovation and knowledge creation, claiming that post-secondary education institutions are imperative components of the knowledge infrastructure (Gertler & Vindorai, 2005). They however aptly question the role that universities play in enabling a region to attract and retain the highly skilled, which is thought to contribute to social inclusion and competitiveness. Through their work, Gertler and Vindorai (2005) noted that the university does play a number of inter-related roles and argued that the ability of the university to attract and retain the highly skilled, while simultaneously contributing to tolerance which further assists in creating the necessary conditions to attract and retain talent, re-enforces the process. While limited work has been undertaken to understand the roles of post-secondary education institutions, Gertler and Vindorai (2005) argue that the university has a much more significant role in the communities in which they reside than simply enabling technology transfer and commercialization of knowledge. Subsequently, Lendel (2010) created the concept of university products, of which human capital was documented as a significant product. Lendel (2010) argues that human capital and the highly skilled provide knowledge to the workplace, create knowledge spillover, stimulate technology diffusion, increase productivity and increase entrepreneurship. Warren et al. (2008) further investigated the economic role of post-secondary education institutions and found that technology transfer is not effective for universities in remote locations due to a lack of significant tangible and intangible infrastructure. Such findings provide further evidence that universities alone are not sufficient to promote local economic development, which supports the claims made by Florida (2002b, pp.291-292). Thus, the findings of Warren

et al. (2008) reiterate once again that one size does not fit all, and the creation of a successful innovation system surrounding technology transfer from a university is dependent upon local resources and social limitations. Furthermore, Hansen et al. (2003) found that the quality of a university program was a major draw for incoming students not the locale of the institution. While certain regions with reputable universities have had problems retaining their graduates, Hansen et al. (2003) suggest that retaining all of the graduates would simply imply that the human capital produced in the local institution was not valued elsewhere. While this raises a valid point, it does not refute the fact that medium-sized cities in Canada are presently facing a net loss of highly skilled due to internal migration. Interestingly, Winters (2010) found that in the United States of America, smart cities were growing because in-coming students were staying after the completion of their education. Subsequently, Costa and Kahn (2000) provide evidence that there is an increased likelihood that highly skilled individuals will wed within the community. Thus, career opportunities for both partners weigh heavily in their location decision-making process (Costa & Kahn, 2000). Presently, there is increased importance for employment equality amongst both genders, and an emphasis for couples to locate in a diversified economy, compensating for both individuals' skill sets (Costa & Kahn, 2000). This finding inherently benefits larger urban regions, as these regions would naturally have the diversified economy sought by the highly skilled. Furthermore, it was noted that if recent graduates obtained their secondary school education within the same region of their post-secondary education, there is a far greater chance that their social ties will retain them within the regional community (Hansen et al., 2003). Furthermore, Bramwell et al. (2008) document that in Waterloo, Ontario, the post-secondary

institutions that supply the human capital are repeatedly noted as a significant factor driving economic growth in the region. The cluster is suggested to have begun because some highly skilled individuals chose to stay on in the Waterloo city-region, thus the cyclical effect of economic growth has taken over (Bramwell et al., 2008). While the importance of universities in generating economic growth is widely understood, the focus tends to be on technology transfer and the commercialization of knowledge rather than human capital production and retention. (Lendel, 2010; Drucker & Goldstein, 2007; Feldman & Desrochers, 2003; Warren et al., 2008; Youtie & Shapira, 2008; Bramwell & Wolfe, 2008). However, Bramwell and Wolfe (2008) found that universities have the ability to play a much more significant role in the local economy in terms of knowledge transfer, including collaborative activities with industry and even attracting and retaining talent to the local economy. Evidence of the economic impact of highly skilled graduates has been documented by Drucker and Goldstein (2006) who found that human capital, specifically at the graduate level in science and technology related disciplines raises average earnings in smaller urban regions (Drucker & Goldstein, 2006). However, the role of post-secondary education institutions is largely affected by the history and institutional context, which is noted by Feldman and Desroscher (2003) as significant factors in determining how and to what extent research universities may economically benefit a local area.

## **2.7 Institutions**

Scholars have frequently noted that institutional cooperation can increase a region's competitiveness and foster innovation in the knowledge economy (Leibovitz, 2003; Etzkowitz & Dzisah, 2008; Smith & Bagchi-Sen, 2010). This type of institutional



collaboration has been referred to by Leibovitz (2003) as the 'third wave', which essentially is an attempt to merge the dichotomy of the neoliberal market economy with the state-led economic policy paradigm, developing an institutional infrastructure that may merge the public and private sectors. Leibovitz (2003) noted that a regional actor from Canada's Technology Triangle asserted that the most difficult aspect of economic governance and institutional collaboration was for the region to act as a region, as opposed to sporting the traditional parochial mindset. Furthermore, Leibovitz (2003) found that barriers to associative governance were: suspicion between the public and private sectors, a lack of trust between local authorities and the private sector's perceptions of community and economic governance. The findings suggest that for significant and meaningful associative governance structures to succeed, local support, resources and commitment of local actors need to be present (Leibovitz, 2003). Additionally, Etzkowitz and Dzisah (2008) argue that the triple helix model of development is an important way to consider knowledge-based development. The premise of the triple helix is that post-secondary education plays an increased role in the development process with strong linkages and relations with industry and government (Etzkowitz & Dzisah, 2008). Etzkowitz and Leydesdorff (2000) argue that the triple helix model fosters an innovative environment to create spin off firms, tri-lateral initiatives, and alliances between firms within the private sector to pursue knowledge-based economic development. They further note that the triple helix model applies directly to individuals as the importance of human capital is widely acknowledged within the literature (2008). In addition, Amin (1999) finds that the institutionalist approach contradicts the inherent policy process as it favors a long-term development process,

which is contrary to electoral cycles, and normal planning processes. However, ‘new regionalism’ and institutional collaboration builds towards strengthening local economies and further improves learning potential and creativity by means of mobilizing local resources (Amin, 1999). Thus, it is commonly recognized that in an era of knowledge-based development, institutionalist frameworks and collaborations between university, industry, and government can significantly increase a local region’s innovative and economic capacity.

## **2.8 Chapter Summary**

This chapter has provided a detailed review of the literature relevant to this study. This included: (1) understanding the importance of attracting and retaining the highly skilled in the knowledge economy, (2) Review of the predominant theories within the economic development literature and those most applied by urban and economic development policy makers, (3) Review of the literature regarding smaller city-regions, which have been seen as largely incompatible with much of the predominant literature within economic development, (4) Review of literature pertaining to the impact and roles of post-secondary education institutions in the context of local economic development; (5) An understanding of the importance of institutional relations in creating a cohesive economic governance model to increase efficiency and optimize limited resources in the knowledge economy.

## **Chapter 3**

### **Methodology**

#### **3.1 Introduction**

Medium-sized cities in Canada have recently experienced an emigration of highly skilled individuals to the larger cities within the urban hierarchy (Backstead et al., 2008). This is of particular concern as developed economies have restructured from an industrial based economy to what is now termed the ‘knowledge economy’. Advanced economies have moved from generating economic growth by means of manual labour and skill to human capital and innovation (Florida, 1995). The discussion concerning human capital and skilled labour is not a recent development as both distinguished writer and activist Jane Jacobs (1969, p. 84) and economist Robert Lucas Jr. (1988) alluded to the importance of human capital in promoting economic development. Recently, Richard Florida introduced the creative class theory, suggesting that talent and human capital was not only a prominent driver of economic development in the knowledge economy, but also that a geographical region’s ability to attract and retain talent plays a significant role in regional development (Florida, 2002a). More specifically Florida, (1999), Thanki, (1999), Berry & Glaeser (2005), Mellander & Florida (2006), Coenen (2007), Lendel (2010), Florida et al. (2010), Darchen & Tremblay (2010) have all argued that universities are integral components of the knowledge economy, as they naturally attract students and help to produce the highly skilled. In addition, Leibovitz, (2003), Etzkowitz and Dzisah (2008) and Smith and Bagchi-Sen (2010) have all argued that institutional cooperation can increase a region’s competitiveness and foster innovation in the knowledge economy. Given that: (1) the out migration of highly skilled individuals from

medium-sized city-regions in Canada, (2) the importance policy makers and scholars give to the attraction and retention of talent, (3) the presence of post-secondary education institutions in a wide range of communities within the urban hierarchy, and (4) the effectiveness of institutional relations in economic development, one needs to ask:

*How and to what extent have institutional relations in medium-sized city-regions in Ontario leveraged the presence of post-secondary education institutions to attract and retain the highly skilled?*

In order to answer this question, this study uses mixed qualitative methods. Specifically, this study employs a policy document analysis of key regional institutions followed by a critical case study of London, Ontario, using semi-structured in-depth interviews. The policy documents used were high-level documents published by institutions and government organizations in the selected medium-sized city-regions in Ontario. The semi-structured in-depth interviews were conducted with key informants in London, Ontario, from the same institutions and government organizations.

The first section of this chapter focuses on the rationale for using qualitative methods to answer the research question. The following section explains the selection and sampling of the policy documents with the rationale for the selected study period. This is followed by a detailed explanation of how the policy document analysis was conducted. The final section focuses on the critical case study conducted in London, Ontario with a detailed review of the methodology and analysis of the key-informant interviews.

### **3.2 Rationale for Qualitative Methods**

Qualitative methods were employed in this study due to the inherent advantages of the methodologies pertaining to the nature of the research question. Qualitative methods allow for various theoretical frameworks and epistemologies, while being highly effective because the methods do not advantage one philosophical view or methodology over another (Nagy Heisse-Biber & Leavy, 2004, p.1). In regards to this study, there has been an absence of empirical research marrying the institutional literature and creative class thesis. To best answer this research question, it is important to gain insight into institutional strategies and directions in order to accurately assess whether a) there is any collaboration to address talent attraction and retention and b) to what extent? A qualitative policy document analysis was chosen to assess and evaluate high order strategic policy documents from the relevant institutions. This analysis alone provides a firm understanding of how and to what extent institutional relations exist in terms of attracting and retaining highly skilled individuals. This method is complemented by in-depth interviews in a critical case study of London, Ontario. This is to allow for further insight into the research question, and reveal underlying strategic programming or initiatives that may not be considered part of the respective institutions strategic mission. Further discussion of the qualitative policy document analysis and the key informant semi-structured in-depth interviews employed in this study will be discussed in further detail.

### **3.3 City-region, Policy Document and Study Period**

This section outlines: (1) the strategy employed in selecting the city-regions, (2) the selection of policy documents and (3) the selection of the study period. Overall, the

policy documents were selected based upon the selected city-regions for this study and the relevant local institutions.

### ***3.3.1 City-region and Policy Document Selection***

First, in order to select the relevant policy documents it is necessary to create parameters for the selection of city-regions. Ontario was selected as the region of study for three reasons. 1) According to Statistics Canada (2012b), Ontario has a population of approximately 13,373,000, constituting approximately 39 percent of the nation's population. 2) Ontario possesses the largest proportion of city-regions in Canada between 150,000 and 500,000 in population (Statistics Canada, 2012a). 3) To eliminate jurisdictional and geographical differences between provinces and territories. This study defines medium-sized city-regions in Ontario as those consisting of 150,000 – 500,000 residents in the 2006 census and that were located outside of the Greater Toronto Area labour market. Backstead et al., (2008) in their Statistics Canada Economy in Transition report define medium-sized urban areas as populations between 100,000 – 500,000 residents. However, Markusen et al. (1999) define second-tier cities as spatially separated from large cities, thus constituting a separate labour market where growth is not considered to be associated with a spillover from a larger metropolitan area. While Markusen et al. (1999) refer to American second-tier cities; the concept of spatial separation between labour markets is an effective and useful concept for this study. Moreover, the city-regions were selected based on whether they possess the appropriate post-secondary education institutions. Thus, this study utilizes city-regions that host both a community college and university established prior to the year 2000. All city-regions in Ontario employ an economic development institution to oversee such matters, whether it

is located within the local government, or as its own entity under local government control. The city-regions selected were Windsor, St. Catharines-Niagara, London, Kitchener-Waterloo, Hamilton, Kingston and Sudbury. Details of each city-region and the subsequent parameters for selection are displayed in *Table 1*.

**Table 1: Selected City-region Parameter Results**

City-region	Population	Distance to City of Toronto	Community College/University
<i>Windsor</i>	323,342	364 Km	St. Clair College/ University of Windsor
<i>St. Catharine's - Niagara</i>	390,317	112 km	Niagara College/Brock University
<i>London</i>	457,720	195 Km	Fanshawe College/ University of Western Ontario
<i>Kitchener - Waterloo</i>	478,121	107 km	Conestoga College/ University of Waterloo & Wilfred Laurier University
<i>Hamilton</i>	504,559 <sup>1</sup>	70.4 km	Mohawk College/McMaster University
<i>Kingston</i>	152,358	264 km	St. Lawrence College/Queens University
<i>Sudbury</i>	157,857	388 km	Cambrian College/Laurentian University

*Sources: Statistics Canada (2012a); Distance: Google (2012)*

Furthermore, it is important to select which institutions are to be used in the policy document analysis. Given that a major parameter for city-region selection was the presence of post-secondary education institutions (University and College), these institutions were both used. While both institutions typically offer different educational programming, both produce highly skilled individuals. In the case of the city-region of Kitchener-Waterloo, there are two universities located within the study area. Therefore, both institutions were used in the collection of policy documents. In addition, each city-region has administrative control over economic development in some form. Many city-regions have created separate entities, known as economic development corporations, and

<sup>1</sup> While Hamilton exceeds the population parameter, the difference was less than 5,000 and was deemed a relevant medium-sized city-region for the study.

some provide this service to their constituents from within city hall. In either case, the economic development corporation is a branch of local government, thus the city's economic development branch is to be the institution under analysis. In the city-regions of Kitchener-Waterloo and St. Catharines-Niagara there were two economic development corporations. Both institutions in each city-region were analyzed. The three institutions selected all provide a high order strategic policy document outlining the direction and or strategy of the institution regarding all of its functions. These documents often take a lot of time, thought and analysis for these institutions to create and are available to the public. Typically, each institution establishes a task force specifically responsible for the creation, evaluation and maintenance of such a document. In the case of post-secondary education institutions, the university and community colleges typically produce these documents on a five to ten year basis, with annual updates. Economic development corporations and municipal economic development departments also produce strategic directions for their respective jurisdiction.

### ***3.3.2 Policy Document Selection Period***

The specific period chosen starts with 2001 due to Ontario's high unemployment in the mid to late 1990's, coupled with the emergence of the creative class thesis in 2000. While policy documents were available from the beginning of the stated time frame, only the most recent and updated documents were used in the analysis in order to gauge the institutions' current direction, strategic vision and focus. Even though the most recent documents were used, it was important to reach back in time in order to capture key documents from institutions that may not have produced recent statements on strategic



priorities. In some cases more than one document was used for each institution however, this was done only in cases where the selected institution elected to publish its strategic document in separate sections. Thus, any document published between 2001 and 2011 was acceptable. However, there was a concerted effort to focus on the most recent documents. *Table 2* shows the documents chosen from the specific institution and the corresponding time frame of each document.

**Table 2: Policy Document's Used in Analysis**

<b>Institution</b>	<b>Policy Document Title</b>	<b>Publication date/period covered</b>
<i>City-region: Hamilton</i>		
City of Hamilton	Hamilton Economic Development Strategy	2010-2015
McMaster University	Refining Directions	2002
Mohawk College	Multi-Year Strategic Plan	2009-2010
<i>City-region: Kingston</i>		
Kingston Economic Development Corporation	Strategic Plan	2011
Queen's University	Engaging the World: A Strategic Plan for Queens	2006
St. Lawrence College	Strategic Plan	2010-2013
<i>City-region: Kitchener-Waterloo</i>		
The City of Kitchener	Our Future is Now: Economic Development Strategy	2007-2010
The City of Waterloo	Building New Bridges: The City of Waterloo's 10-Year Economic Development Strategy	2008-2017
University of Waterloo	Pursuing Global Excellence: Seizing Opportunities for Canada, Sixth Decade plan	2007-2017
Wilfred Laurier University	The Century Plan (1) & The Academic Plan (2)	(1)2005-2011 (2)2010-2015
Conestoga College	Strategic Plan	2010-2013
<i>City-region: London</i>		
London Economic Development Corporation	A Workforce Development Strategy for London	2007
The University of Western Ontario	Engaging the Future (1)	(1)2007
	Engaging the Future: Update on the Strategic Plan (2)	(2)2010
Fanshawe College	Annual Report on Strategic Plan Implementation	
<i>City-region: St. Catharine's-Niagara</i>		
Economic Development & Tourism Services Department	City of St. Catharine's Economic Development Strategy	2010
Niagara Economic Development Corporation	Navigating Our Future: Niagara's Economic Growth Strategy	2009-2012
Brock University	Strategic Plan (1)	2010 (1)

	Integrated Strategic Plan (2)	2010 (2)
Niagara College	Strategic Plan	2009-2014
	<b><i>City-region: Windsor</i></b>	
Windsor Essex Economic Development Corporation	Windsor – Essex Regional Economic Road Map	2011
University of Windsor	Thinking forward...Taking Action	2010
St. Clair College	Strategic Directions	2010-2015
	<b><i>City-region: Sudbury</i></b>	
Greater Sudbury Development Corporation	Digging Deeper: An Economic Development Strategic Plan for Greater Sudbury 2020	2009 - 2020
Laurentian University	Building on Success: A Strategic Plan for Laurentian University	2008-2011
Cambrian College	Strategic Plan	2009-2014

### 3.4 Policy Documents

This section provides details regarding the policy document analysis conducted on the strategic policy documents. First, there will be an overview of policy document analysis, followed by the guidelines employed in the analysis.

#### 3.4.1 Content Analysis Methodology

Content analysis is a widely used method in qualitative research. However, there is no guide or handbook available for researchers entailing the methods/instructions or a complete discussion of problematic areas within the method (Bos & Tarnai, 1999). Thus, researchers must selectively review past journal articles to analyze contributions to identify procedures and problem areas associated with the method (Bos & Tarnai, 1999). Qualitative content analysis is not a new method in social research as Hsieh and Shannon (2005) have documented tracing the history of the method back to 18<sup>th</sup> century Scandinavia. The method was first used in the United States at the beginning of the 20<sup>th</sup> century as an analytical technique. Mayring (2000) notes that there was a distinction in approaches to text analysis in the past, initiating the analysis and comparison of texts in hermeneutic contexts with bible interpretations or even dream analysis performed by Sigmund Freud. Since the beginning of the 20<sup>th</sup> century, content analysis was used either

as a qualitative or quantitative method, but as time passed it became predominantly a quantitative method for analysis (Hsieh & Shannon, 2005). However, there was a broadening of disciplinary use and differentiation of qualitative text analysis in the 1960's in disciplines such as linguistics, psychology, history and sociology where there was a refinement of procedures such as contingency analysis and computer applications (Mayring, 2000). This was followed by a period of qualitative critics who believed the quantitative content analysis was superficial and did not respect the context of the data, which led to the development of qualitative content analysis (Mayring, 2000).

Qualitative content analysis is defined by Mayring (2000) as “an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step-by-step models, without rash quantification”. Furthermore, Hsieh and Shannon (2005) define qualitative content analysis as a “research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”. Both definitions are appropriate for this study, as the purpose of conducting qualitative content analysis on the institutional policy documents is to analyze the emerging themes and patterns regarding strategic directions facilitating institutional relationships, attracting and retaining the highly skilled to the city-region.

While qualitative content analysis is known to be flexible, it is the responsibility of the researcher to ensure objectivity. In this study, the content analysis must be objective to achieve the method's intended purpose. This was done with the selection of categories analyzed through the strategic policy documents and careful review of the documents. In accordance with the research question of this study, categories were

developed as shown in *Table 3*. Each category and indicator in *Table 3* was used in the analysis of each institution's strategic policy document.

**Table 3: Policy Document Analysis Themes and Indicators**

<i>Main Theme Indicator 1</i>	<i>Main Theme Indicator 2</i>	<i>Main Theme Indicator 3</i>	<i>Main Theme Indicator 4</i>	<i>Main Theme Indicator 5</i>	<i>Reference Theme Indicators</i>
Attract Highly Skilled to City-region	Retain Highly Skilled in City-region	Community – Post-Secondary Education Institution Relations	Attracting highly skilled to Post-Secondary Education Institution	Retain highly skilled in Post-Secondary Education Institution	Description of Talent
<i>Sub-set Indicators</i>	<i>Sub-set Indicators</i>	<i>Sub-set Indicator</i>	<i>Sub-set Indicators</i>	<i>Sub-set Indicators</i>	<i>Sub-set Indicators</i>
Strategic Priority  Programs and/or Incentives Available  Institutional Collaboration	Strategic Priority  Programs and/or Incentives Available  Institutional Collaboration	Strategic Priority	Strategic Priority  Attract Students  Attract Faculty	Strategic Priority  Retain Students  Retain Faculty	Youth (18-34)  PSE Graduates  Mid-Career Professionals  Skilled Trades

The main theme and sub-set indicators displayed in *Table 3* were derived based upon the research objectives and research question posed. The main theme indicators act as guidelines to assess the research question, while the sub-set indicators act as probing indicators. Main theme indicators one and two were developed to understand how each institution values the attraction and retention of the highly skilled in terms of their strategic policy documents. The sub-set indicators for main theme indicators one and two advance our understanding not only of the research question and objectives, but also to what extent. Programs and incentives allow for a greater understanding of how the

strategic priority is being endorsed or applied. The sub-set indicator 'institutional collaboration' is provided to assess the institutional relations component of the research question and objective.

Main theme indicator three was developed to connect main theme indicators one and two with main theme indicators four and five. This main theme and sub-set indicator establishes whether community - post-secondary education institution relations are a strategic priority, allowing for further meaning to be extracted. Given the purpose of main theme indicator three, sub-set indicators beyond 'strategic priority' were not deemed necessary as probing such an indicator was seen to add little value to the research question and objectives. Main theme indicators four and five assess whether the institutions strategically attempt to attract and retain the highly skilled and individuals who seek to become highly skilled. This corresponds to the literature in that the post-secondary education institutions act as a magnet for talent. If the post-secondary education institutions do strategically work on attracting and retaining the highly skilled to the institution, then such institutions would arguably possess the ability to facilitate the attraction and retention of the highly skilled to the city-region in which they reside. Finally, the reference theme indicators were developed with the aim to evaluate what type of highly skilled individuals are sought or noted within the strategic policy documents by all institutions studied. This advances our understanding of the direction the institutions are taking in terms of developing a detailed account of the type of talent. Furthermore, this information addresses to what extent the institutional relations are leveraging post-secondary education institutions to attract and retain the highly skilled.

When coding whether a text should be included in any of the given categories, the aim was to be as systematic and consistent as possible. Therefore, guidelines for which a statement is considered to adhere to a given category or code must be present. For this purpose, in the qualitative content analysis of the policy documents, there was a method for which a document met the criteria of the category. For example, a 1 under any given category meant that the category was *stated*, 2 = *implied* and a 3 = *unstated*. Using this type of method is subject to subjectivity, when concerning the 2= *implied* meaning. However, this subjectivity is reduced by the categories being reflective of strategic priorities, which are clearly stated and highlighted in each strategic policy document. This study provides a step-by-step explanation of how the results were obtained.

### 3.4.2 Policy Document Coding

As previously mentioned, an indicator within the policy document analysis would either receive a 1 (stated), 2 (implied), or 3 (unstated) coding across all indicators specified in *Table 3*. A complete legend used in the policy document analysis is presented below in *Figure 6*.

**Figure 6: Policy Document Analysis Legend**

<b>LEGEND</b>
1 = Stated (Yes)
2 = Implied
3 = Unstated (No)
*...Please refer and correspond with description of talent
#...Please refer and correspond with description of talent

This method was used to easily identify which indicator was present in a given policy document. The policy document analysis consisted of two sections: First, the main

theme indicators and their sub-set indicators and second the description of talent. Symbols created to identify when an entry (1,2 or 3) was made within either the main theme indicators or sub-set indicators and whether it corresponded to a specific type or description of talent.

For instance, if a policy document stated that attracting and retaining skilled youth in the city-region was a priority, the notation on the policy document for both attracting and retaining highly skilled youth into the city-region consist of a 1 (stated) and an asterisk symbol (\*) beside the number. Then, an entry would be made under the “Description of Talent” portion of the policy document table, where under “Youth (18-34) an entry of 1 (stated) with a corresponding asterisk (\*) would be made. The asterisk would guide the reader from the given sub-set indicator to the description of talent, to identify if any reference was made to the type of highly skilled individuals. Both an asterisk (\*) and number sign (#) were used to refer and correspond with a description of talent. This was done to ensure that if more than one sub-set indicator was needed to correspond with a specific talent reference within the same policy document, it would be easily traceable. For example, the Kingston Economic Development Corporation stated that a strategy within their ‘community economic development’ agenda was to, “advance *Family Physician Recruitment & Retention* activities to ensure every resident of Kingston has access to primary health care in their community” (Kingston Economic Development Corporation, 2011, p.1). Thus, a 1 (stated) was assigned to both attraction and retention of the highly skilled sub-set indicators for strategic priority, along with a 1 with an (\*) beside it, resulting in (1\*) under mid-career professionals within the description of talent section of the table. Furthermore, selection of one of the given codes for an indicator (1, 2

or 3) was based upon the content within the document. The policy document was read and scanned manually, without the assistance of computer software. The following were the main thematic indicators for the analysis, which are also present in *Table 3*: attracting highly skilled to the city-region, retaining highly skilled in the city-region, community post-secondary education institution relations, attracting highly skilled to the post-secondary education institution, and retaining the highly skilled to the post-secondary education institution. Within these main themes were sub-set indicators. The sub-set indicators which related to attracting and retaining the highly skilled to the city-region were: strategic priority, programs, incentives and institutional collaboration. First, the strategic priority sub-set indicator would be coded as 1,2 or 3. In the event that it was either stated (1) or implied (2) the remaining sub-set indicators would be addressed.

Moreover, the main theme indicator ‘community – post-secondary education institution relations only had one a sub-set indicator, which was ‘strategic priority’. For both attracting and retaining the highly skilled to post-secondary education institutions the sub-set indicators were: strategic priority, attracting students, retaining students, attracting faculty and retaining faculty. Within the ‘Description of Talent’ reference theme indicator, the following sub-set indicators were present: youth (18-34), post-secondary education graduates, mid-career professionals, skilled trades and post-secondary education faculty. These sub-set indicators were developed to aid the previous main theme and sub-set indicators and act as a method of correspondence to any descriptions of talent referred to in any main or sub-set indicators. For all main theme and sub-set indicators, the codes 1, 2 or 3 were employed. If there was a statement within a respective policy document that clearly identified a strategic priority, as one of the main



theme indicators, the first sub-set indicator ‘strategic priority’ would be coded a 1 (stated). If the policy document indirectly alluded to the main theme indicator and sub-set indicator ‘strategic priority’, a 2 (implied) was coded. Further, if a statement within a policy document was made within the context of a strategic priority that alluded to a main theme indicator and the sub-set indicator ‘strategic priority’, a 2 (implied) was coded. This was done to ensure that if the institution did not document a main theme indicator as a strategic priority, but noted its importance, it would still be implied that it was part of the institution’s strategic direction. If nothing regarding a main theme or sub-set indicator was present in a document, a 3 (unstated) would be coded. These steps were followed for all sub-set indicators. *Table 4* provides a detailed review of code definitions used.

**Table 4: Policy Document Analysis Code Definitions**

<b>Subset Indicator: Strategic Priority</b>	<i>Description</i>
<b>Code: 1</b> Meaning: <i>Stated</i>	Clearly stated the main theme indicator as a strategic priority within the policy document
<b>Code: 2</b> Meaning: <i>Implied</i>	Stated a main theme indicator in the context of or as an action plan or evaluation mechanism of a strategic priority. Or within the text at any point noted or referred to the importance of a main theme indicator.
<b>Code: 3</b> Meaning: <i>Unstated</i>	Was not mentioned in any capacity.
<b>Remaining Subset Indicators</b>	<i>If a main theme indicator was coded either a 1 or 2 within the subset indicator ‘strategic priority’ then the remaining subset indicators would be coded as follows:</i>
<b>Code: 1</b> Meaning: <i>Stated</i>	Clearly stated the given sub-set indicator within the context of the relevant main theme indicator
<b>Code: 2</b> Meaning: <i>Implied</i>	Implied a sub-set indicator in the context of or as an action plan or evaluation mechanism of a strategic priority regarding the relevant main theme indicator

<b>Code: 3</b> Meaning: <i>Unstated</i>	Was not mentioned in any capacity
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### 3.5 Critical Case Study

A critical case study was performed on the London city-region, which is complimentary to the policy document analysis of the seven selected city-regions. The City of London, Ontario was chosen as the city-region for the critical case study for several reasons. First, the Martin Prosperity Institute, which conducted a report for London in April of 2009, found that the city was below average in university education, professional degrees and human capital levels as compared to other similar city-regions. This was noted as an anomaly given the presence of Western University in the city (Martin Prosperity Institute, 2009). Secondly, London which is located in the manufacturing belt, is currently experiencing economic restructuring and is noted as facing difficulties in attracting and retaining human capital (Bradford, 2010). Finally, insufficient attention in the economic development literature has been paid to the city-region. All these make London an ideal sample city-region for study.

#### 3.5.1 Key Informant Selection

This critical case study was completed using five semi-structured in-depth key informant interviews with individuals who have relevant knowledge pertaining to programs, policies or institutional relationships concerning the attraction and retention of highly skilled workers, within their respective institutions. The institutions selected were chosen on the same basis as the policy document analysis. Specifically, in London the key-informants were from Western University, Fanshawe College and the London Economic Development Corporation. The key informants were deemed to possess

relevant knowledge to the research question based upon the position which they held within the institution.

### ***3.5.2 Methodology: In-Depth Interviews***

Semi-structured in-depth interviews were used in this study to complement the findings of the policy document analysis. While the policy document analysis is useful and insightful, the in-depth interviews allow for further investigation to reveal any relevant information that was not present in the policy documents. The literature review revealed that several studies concerned with the mobility and distribution of human capital and the subsequent affects on economic development have employed quantitative methods using proxy measures and correlation coefficients (Florida, 2002a), (Florida et al.,2008), (Berry & Glaeser, 2005), (Sands & Reese, 2008), (Faggian & McCann , 2009), (Florida et al.,2010), (Brown et al., 2010). Conversely, a few scholars have collected empirical data using qualitative methods such as Lepawsky et al (2010), who conducted interviews of highly skilled individuals in St. John's Newfoundland. Furthermore, Darchen and Tremblay (2010) used a mixed-method approach when researching what attracts and retains knowledge workers/students: the quality of the place or career opportunities. While they conducted a survey to retrieve quantitative data, they also conducted interviews to gain further insight and supplementary information. Subsequently, using in-depth interviews in this study allowed for a more detailed analysis of the underlying themes related to the research question and introduced a more novel approach to the empirical research concerning human capital and economic development. Furthermore, studying London as a critical case study also provided empirical evidence

from a medium-sized city-region, which contrasts with much of the current literature focusing primarily on large metropolises.

In-depth interviewing involves the process by which the interviewer and interviewee participate in an exchange of dialogue, resulting in the contribution of valuable knowledge on the part of the interviewee and whereby the participants co-construct meaning (Miller & Crabtree, 2004, p. 187). Such a method yields great value to qualitative researchers, particularly when mining for rich content. Specifically, this study consisted of two interviews with key informants of Western University and the London Economic Development Corporation, while one interview was conducted with a key informant from Fanshawe College.

The individuals were selected based upon the position they currently hold within the institution of interest, to ensure they were knowledgeable regarding the institutions decision-making process. Each interview lasted approximately 60 minutes, and was conducted at the interviewees' choice of location, which in all cases was their office. This ensures the interviewees were comfortable, which is very important when seeking information through dialogue. Each of the interviews was recorded digitally, with the consent of the interviewees.

### ***3.5.3 Rigour***

Rigour is an essential component of all research, to provide validity in the results obtained. Baxter and Eyles (1997) reviewed thirty-one empirical papers where the most common ways to ensure rigor were: provision of information regarding the methods appropriateness, and multiple methods. In twenty-three of the papers, multiple methods were employed, and in many of those, in-depth interviews were paired with either textual

analysis or participatory observation (Baxter & Eyles, 1997). In the case of this study, the content analysis is complemented by the in-depth interviews promoting rigour, as data unavailable in the policy documents may be made available through close dialogue with key informants in the field. Furthermore, it is noted that establishing a standardized interview guide can improve the rigour in a study, as it allows for the comparison of emerging themes (Baxter & Eyles, 1997). While an effort was made to ensure rigour, there was potential for response bias from the informants containing a political element. The responses were politicized to suggest that there was more going on than there actually was. In this study, an interview guide was created and used for all key informant interviews (See *Appendix A*).

#### ***3.5.4 Coding and Analysis***

In analyzing the interviews, they were first transcribed into text format. The texts were manually read and themes were extracted and categorized. These themes presented in Chapter 5 are as follows: 1) Attracting and Retaining the Highly Skilled to London Contributes to Economic Development, 2) Key Informant Perceptions of London's Performance, 3) Institutional Collaboration as an Effective Means of Economic Governance, 4) Institutional Relations and Attracting and Retaining the Highly Skilled in London: Who is Responsible? 5) Institutional Relationships: Examples, Factors of Success and Barriers and 6) The Future: Where Does London Go From Here? The results will be thoroughly presented in Chapter 5 and are further discussed in Chapter 6.

### **3.6 Summary of Chapter**

This chapter reviewed the mixed qualitative methodology employed in the study. Specifically, the chapter first reviewed the policy document analysis by providing detailed explanations of the: 1) selection of city-regions, 2) selection of policy documents, and 3) how the documents were analyzed. Secondly, the chapter reviewed the critical case study by providing detailed descriptions of: 1) Why the city-region of London was chosen, 2) justification for the key informants selected, and 3) how the resulting data was analyzed.

## Chapter 4

### Results: Policy Document Analysis

#### 4.1 Introduction

This chapter presents the results of the policy document analysis of the seven selected city-regions and their local economic development and post-secondary education institutions respectively. The policy document table was developed with four main theme indicators: 1) attract highly skilled to city-region 2) retain highly skilled to city-region 3) community – post-secondary education relations and 4) attracting and retaining highly skilled to/within the post-secondary education institution. Within these main theme indicators are sub-set indicator designed to further investigate the extent each main theme indicator is endorsed. The results are presented in summary in *Table 5*. Furthermore, this chapter will present the detailed results of each main theme indicator and their subsequent sub-set indicators. Not all examples will be presented for each indicator and institution from each of the city-regions. However, a fair representation of the results will be presented in detail. For further information pertaining to a city-region's results that is not presented in this chapter, please refer to the policy document analysis summary in *Table 5* or *Appendix E*. The policy document table and the subsequent indicators were developed with the aim to investigate how and to what extent institutional relations are leveraging post-secondary education institutions to attract and retain the highly skilled in the seven selected city-regions in Ontario. Each main theme indicator in the policy document table provides insight into answering the research question and the subsequent sub-set indicators were developed to evaluate how and to what extent the main theme indicators are being employed.

**Table 5: Policy Document Analysis Summary**

Indicator	City-region						
	<i>Hamilton</i>	<i>Kingston</i>	<i>Kitchener-Waterloo</i>	<i>London</i>	<i>St. Catharines-Niagara</i>	<i>Sudbury</i>	<i>Windsor</i>
<b>Attract Highly Skilled to City-region</b>							
Strategic Priority	E	E	E	E <i>c</i>	E C	E	E
Incentives Available							
Program(s)	E			E		E	
Institutional Collaboration	E		E		E C		
<b>Retain Highly Skilled to City-region</b>							
Strategic Priority	E	E	E	E <i>c</i>	E C	E	E
Incentives Available							
Program(s)							
Institutional Collaboration			E		E C		
<b>Community – PSE Relations</b>							
Strategic Priority	E U C	E U C	E U C	E U C	E U C	E U C	E U C
<b>Attract and/or Retain Highly Skilled to PSEI</b>							
Strategic Priority	E U <i>c</i>	U C	U C	U C	U C	<i>e</i> U C	U C
Attract Students	E U	U	U C	U C	U	<i>e</i> U C	U C
Retain Students	E U	C	U C	U C	C	U C	U C
Attract Faculty	U <i>c</i>	U	U C	U	U C	U	U
Retain Faculty	<i>c</i>	U	U <i>c</i>	U	U C	U	U
<b>Legend</b>							
Stated (Capital Letter)				Implied (Lower Case Letter, <i>italicized</i> )			
E = Economic Development Institution				<i>e</i> = Economic Development Institution			
U = University				<i>u</i> = University			
C = College				<i>c</i> = College			



#### **4.2 Main Theme Indicator 1 & 2: Attract and Retain Highly Skilled to City-region**

The first main theme indicator was selected to identify which institutions of the seven selected city-regions noted attracting highly skilled to their respective city-region. Main theme indicator two was selected to identify which of the seven selected city-regions noted retaining the highly skilled to their respective city-region. Due to the similarity between the sub-set indicators for both attracting and retaining the highly skilled, this section will present the findings for both main theme indicator one and two. As the literature suggests, attracting and retaining highly skilled individuals is a key component of economic development in the knowledge economy. The research question posed is how and to what extent have institutional relations leveraged the presence of post-secondary education institutions to attract and retain the highly skilled in medium-sized city regions of Ontario? Thus, the purpose of these indicators is not only to identify which city-regions identified the attraction and retention of highly skilled as strategic priority for economic development, but also to shed light on whether post-secondary education institutions were involved. The sub-set indicators used for both themes were: 1) strategic priority, 2) incentives available, 3) program(s) and 4) institutional collaboration. Sub-set indicator one: strategic priority was used to gain insight as to whether any of the three institutions analyzed had noted attracting highly skilled to the city-region in which they reside as a strategic priority. If sub-set indicator one was not noted in the high order policy documents analyzed by the institution, the following sub-set indicators were not present either. Sub-set indicator two: incentives available, was used to further investigate whether incentives were offered to entice the individuals to locate in the city-region. Sub-set indicator three further elaborates on the latter two sub-

set indicators, documenting if a program is in place to attract and/or retain the highly skilled. Finally, sub-set indicator four: institutional collaboration, distinguishes whether this priority of attracting and/or retaining the highly skilled was being pursued in collaboration with other institutions. The institutional collaboration did not have to be present between the three institutions studied to be considered.

#### ***4.2.1 Attracting and Retaining the Highly Skilled to the City-region: Strategic Priority***

As indicated in *Table 5*, all economic development institutions from the seven selected city-regions noted that attracting and retaining the highly skilled to the city-region was a strategic priority. This is not surprising given the amount of attention this issue has received over the past decade both within media and public policy discussions. However, it is clear that this particular issue is predominately addressed through the economic development institutions. Only in two cases, London and St. Catharines-Niagara were colleges noting attracting and retaining the highly skilled as a strategic priority. In the case of London, it was only implied. There were no cases where universities documented any interest in the attraction or retention of the highly skilled to their respective city-regions. Select results will be presented in summary, focusing on several key examples for each indicator.

First, Sudbury's economic development institution noted the attraction of highly skilled a clear strategic priority and the theme continued throughout their entire strategic document. While there are various ways policy makers may attempt to attract and retain the highly skilled to the city-region, Sudbury is making a strong effort to leverage their quality of life. "The city must leverage its quality of life to attract and retain the talent

needed to build prosperity in the 21st century (Greater Sudbury Development Corporation, 2009, p.15). Furthermore, the policy document goes on to elaborate the importance of attracting the highly skilled given the size of the city-region and the exodus of local youth.

*An economic development plan is only as strong as its intellectual capital. Some of that talent is attracted from outside the community, but most has to be nurtured from within. Greater Sudbury, like many smaller cities in Canada, must compete with the four mega-centres for talent of all kinds. It is an uphill battle as Greater Sudbury's youth continue to leave for "greener pastures". (Greater Sudbury Development Corporation, 2009, p.18)*

However, Sudbury's economic development institution has not limited itself to the attraction and retention of skilled youth, as it was noted that Sudbury must, "Continue [the] Physician Recruitment Program and leverage lessons learned towards that attraction of other skilled health professionals" (Greater Sudbury Development Corporation, 2009 p. 23). Thus, mid-career professionals are also essential for the city-region to attract, especially in areas of need such as health care.

Secondly, the city-region Hamilton does show similarities to Sudbury, despite the large contrast in population. Numerous references were made by Hamilton's economic development institution regarding the importance of attracting and retaining highly skilled individuals, with a clear emphasis on the local youth.

*The link between economic prosperity and retaining educated, skilled young people in a community is well documented. Preventing brain drain of local young people to other communities needs to be a priority for Hamilton (City of Hamilton, 2010, p.94).*

*Youth Retention and Attraction must be a carefully considered and immediately addressed component of Hamilton's Economic Development Strategy (City of Hamilton, 2010, p. 213).*

While Hamilton's economic development institution stated in their strategic policy document that the attraction and retention of highly skilled individuals was a significant priority, it was not limited to skilled youth.

*We must adopt an attraction strategy to bring new immigrants to our city as well as a retention policy to keep our existing youth here. Not only do our youth and newcomers offer a supply of highly skilled, well educated labour, but they also bring new business ventures and economic and social opportunities (City of Hamilton, 2010, p.127).*

Hamilton's economic development strategy made various references to the importance of attracting highly skilled immigrants to the region as a means of workforce development and human capital accumulation. In Hamilton, policy makers have made note of future demographic challenges for the city-region and have been recommended to create a Youth Retention/Attraction (YRA) strategy and task force to ease future labour market concerns.

*In any approach to YRA in Hamilton, just as much focus should be placed on ensuring that home-grown youth have skills to retain, as there is placed on attracting and retaining skilled youth from outside the city (City of Hamilton, 2010, p.220).*

It is evident that Hamilton has placed the attraction and retention of the highly skilled in the city-region as a strategic priority for economic development, not only in terms of youth but also skilled immigrants. However, as *Table 5* indicates, neither McMaster University nor Mohawk College shares the desire to attract and retain the highly skilled to the city-region as a strategic priority.

Finally, the city-region of St. Catharines – Niagara displayed significant contrasts from Hamilton and Sudbury as Niagara College stated a strategic priority was to, “Strengthen our partnership with Brock University to attract and retain youth, and

produce skilled graduates for a transitioning economy”(Niagara College, p. 13). Interestingly, Brock University did not make reference to this strategic priority of Niagara College. Nevertheless, the policy document analysis suggests it is uncommon for post-secondary education institutions to make reference to attracting or retaining highly skilled to the city-region. Niagara College was the only post-secondary education institution to state the attraction and retention of the highly skilled as a strategic priority. In addition, Fanshawe College in the city-region of London implied the attraction and retention of highly skilled as a strategic priority through their school policy A-40 “Meeting Labour Market Needs”.

*The Board’s Meeting Labour Market Needs policy clearly affirms the College’s commitment to providing graduates with the appropriate skills necessary to satisfy current and future labour market needs of the communities served by the College. More specifically, the communities served include Southwestern Ontario and strategic provincial, national and international labour markets (Fanshawe College, 2011a, p.22).*

While this policy is highly responsive to local labour market needs in terms of providing students with the skills necessary to work within the city-region. The policy does not clearly indicate that the attraction or retention of highly skilled individuals to the city-region of London is a strategic priority, however it is implied.

#### ***4.2.2 Attract and Retain Highly Skilled to City-region: Incentives Available and Program(s)***

In this section sub-set indicators: Incentives Available and Program(s) will be reviewed. As noted in *Table 5* there were no institutions out of the seven selected city-regions that made note of any incentives with the aim to attract or retain the highly skilled to their respective city-region. However, three of the seven selected city-regions

economic development institutions did have a stated program related to attracting the highly skilled. No post-secondary education institution from any of the seven city-regions had any programs related to the attraction or retention of highly skilled to the city-region. In addition, none of the institutions analyzed in the seven city-regions had a program related to the retention of highly skilled. The three city-regions offering programs related to the attraction of highly skilled were: Hamilton, London and Sudbury. London documented a program within their policy document issued by the London Economic Development Corporation.

*International Skills Connections - this project will develop partnerships with communities in other countries that are known for excellent training in the skill areas where London will have the greatest needs. By tapping into their oversupply of skilled workers, we could help satisfy London's undersupply at a time when our needs are becoming more acute (London Economic Development Corporation, 2007, p. 10).*

Moreover, no additional programming was evident pertaining to the attraction or retention of highly skilled individuals. In the city-region of London the initiatives in place attempting to attract talent from within the country were limited to advertising of job postings and marketing the City of London as a place to locate. In contrast, Kitchener - Waterloo conducted thirty stakeholder interviews with leading business, academic and community leaders as a part of the Waterloo economic development policy document. Respondents were asked: how can the City Hall Support your continued success?

*This question prompted many responses, as each individual had specific needs for their organization. The overall trend in the responses was the need for a labour attraction and retention program in the community. Several respondents indicated they have difficulty in attracting appropriate labour to the community. As well, respondents indicated a need for more communication and involvement from the Economic Development Department, the Planning Department, and the Mayor's Office in the various collaborative projects that are occurring in the community (The City of Waterloo, 2008, p. 48).*

While this is a case where no program does exist to attract or retain the highly skilled, it was the most common concern from community stakeholders. In the city-region of Sudbury, a program was established directly for the attraction of health care professionals by the local economic development institution. While this is not a general talent attraction program, it has been implemented targeting the skill shortage seen as the greatest need for the city-region.

*Access to healthcare services is always a major determinant for quality of life. In 2009, currently 30,000 residents in Greater Sudbury are without a general practitioner. An aggressive physician recruitment program has already surpassed its near-term quota attracting new physicians to practice in Greater Sudbury and hence make strides to alleviate this shortage (Greater Sudbury Development Corporation, 2009, p. 16).*

*Strategic Actions: Continue Physician Recruitment Program and leverage lessons learned towards that attraction of other skilled health professionals (Greater Sudbury Development Corporation, 2009, p. 24)*

Furthermore, the City of Hamilton discussed the implementation of a program called the “Coordinated Talent Recruitment Effort”. The economic development institution noted that the more information that could be presented to a highly skilled individual about the advantages of living and working in Hamilton, the higher the chance the city-region would be able to recruit the individual. With this particular program, the city-region will summon successful leaders in key industries to assist in the recruitment of future highly skilled workers.

*These efforts not only require consolidated information from various sources, but also a “sales team” consisting of community and political leaders. Therefore, what is recommended in this section is the creation of a database for each of the Business Development Key Industry groups that identifies “champions” in each of these industry groups that can be summoned to participate in talent recruitment. This data base will list all relevant contact information and the areas of expertise for each of the “champions”.*

*Short-term Deliverables*

- *Identification of “champions” in various recruitment areas*
- *Creation of a database for instant e-blasts to “champions”*

*Long-term Deliverables*

- *Two successful recruitment initiatives per year*  
(City of Hamilton, 2010, pp.463-464).

The three above-mentioned city-regions provided the only evidence of programs with the aim of attracting the highly skilled. The local economic development institution implemented each documented program. Furthermore, no programs were evident from any of the seven city-regions in terms of retaining the highly skilled.

***4.2.3 Attract and Retain Highly Skilled to City-region: Institutional Collaboration***

In terms of institutional collaboration regarding the attraction and/or retention of the highly skilled to a specific city-region, only Hamilton, Kitchener-Waterloo, and St. Catharines-Niagara provided evidence of such collaboration. Moreover, Niagara College was the only post-secondary education institution to identify institutional collaboration with the aim to attract and/or retain the highly skilled to their respective city-region. Specifically, Niagara College stated in their strategic objectives for the next five years that they will, “Strengthen our partnership with Brock University to attract and retain youth, and produce skilled graduates for a transitioning economy” (Niagara College, p. 13). In this case, Niagara College addresses both the attraction and retention of the highly skilled in the context of the local economy. St. Catharines economic development institution also stated institutional collaboration would be used to attract and retain the highly skilled to the city-region.

*Increasingly, creative & knowledge-based industries are locating in areas where their employees want to live. The key to building a new creative-based economy in*



*St. Catharines is establishing a community that will be attractive to the talented men & women who will be employed in this economy. This in turn starts with the next generation of employees: the students from Brock University & Niagara College who are at the forefront in the new interactive media technologies. ED will strive to foster business incubation facilities for these students, allowing them the opportunity to explore new skills & define their place in St. Catharines. ED will work to ensure they have the financial capacity, knowledge & contacts to achieve their entrepreneurial goals within the city (The City of St. Catharines, 2011, p. 20)*

*Priority Action:*

*Support partnerships with Brock University, Niagara College, Silicon Knights & associated business/organizations with the purpose of promoting, researching & guiding the overall development of Niagara's interactive gaming industry (The City of St. Catharines, 2011, p.20)*

It is clear from the first text that the interactive gaming industry in St. Catharines needs to attract and retain the highly skilled to further establish this industry through the utilization of the local post-secondary education institutions. In addition, the Niagara economic development institution stated clearly that institutional collaboration was a very important strategic policy objective:

*Context:*

*The direct correlation between educational achievement and positive economic development is well documented. It is clear that Niagara's future prosperity depends on the strength of its people and on its capacity to produce and attract skilled graduates and versatile workers (Niagara Region, 2009, p.9)*

*Policy Statement:*

*Encourage collaboration between, secondary and post-secondary institutions to create the most highly qualified individuals in order to provide the labour force for the future economic growth of Niagara in all sectors of the economy (Niagara Region, 2009, p.9)*

*Actions:*

- *Develop a collaborative program promoting secondary and post-secondary school co-op and work placements among Niagara employers.*
- *Continue the process of collaborative partnerships between Niagara College, Brock University, and other educational institutions.*

- *Encourage Niagara educational institutions to create programs that help provide a qualified supply of skilled labour for the regional economy. (Niagara Region, 2009, p.9)*

Given the context of the policy statement, it is clear that the Niagara economic development institution was referring to the institutional collaboration for both the attraction and retention of highly skilled individuals. This was the only city-region that had both an economic development institution and post-secondary education institution stating a strategic objective to work together for the purposes of attracting and retaining the highly skilled to the city-region.

Furthermore, Kitchener's economic development institution stated in their future actions that they would work closely with and support other local organizations in the attraction and retention of highly skilled individuals specifically for the city's manufacturing industry.

*The City will work with Communitech, local chapters of manufacturing industry associations, the Greater KW Chamber of Commerce, and Regional Labour Council and the Waterloo Region Immigrant Employment Network (WRIEN) and the Waterloo Wellington Training and Adjustment Board (WWTAB) to support the development, retraining, retention and recruitment of talented workers needed by the City's manufacturing industry (The City of Kitchener, 2007, p.22).*

While there is not a program in place to attract and retain the highly skilled by the economic development institution, it is clear that institutional collaboration does exist given the partnership and support provided to the local organizations to attract and retain highly skilled within the manufacturing industry.

As is evident through the policy document analysis for main theme indicators one and two, attracting and retaining the highly skilled, there are various degrees in which

economic development and post-secondary education institutions are responding to their respective city-region. Moreover, it is clear that there is limited cohesion between the institutions regarding this pressing economic development issue and a clear divide between economic development institutions and post-secondary education institutions. The findings and implications of such results will be further discussed in Chapter 6.

### **4.3 Main Theme Indicator 3: Community - Post-secondary Education Institution Relations**

The third main theme indicator was selected to identify which institutions of the seven selected city-regions noted community – post-secondary education institution relations as a strategic objective within their policy documents. The purpose of using this as an indicator establishes if 1) the community noted relations with the local post-secondary education institutions as a priority, and 2) if the post-secondary education institutions noted relations with the community a strategic priority. Since the communities economic development interests are delegated to the economic development institution, such relations are very important and relevant to the economic development institutions. In addition, this indicator is vital to other indicators in the policy document analysis. If either the local economic development institution or post-secondary education institution does not feel relations with one another are of interest as a strategic priority, then there may be an explanation for limited collaboration and a barrier going forward for future collaboration. Thus, this indicator is essential in progressing our understanding of how and to what extent institutional relations have leveraged the presence of post-secondary education institutions to attract and retain the highly skilled in medium-sized

city regions of Ontario. For this main theme indicator, there are no specific sub-set indicators except for ‘strategic priority’.

#### **4.3.1 Community, Post-secondary Education Institution Relations: Strategic Priority**

All economic development and post-secondary education institutions within the seven selected city-regions stated that community- post-secondary education institution relations were a strategic priority. First, the economic development institution in the city-region of Hamilton noted within their regional innovation network:

*The City’s last two Economic Development strategies focused on the goals of diversification of Hamilton’s economy and making local companies globally competitive. But it is innovation alone that is the real driving force for improved productivity growth and making a company more competitive.*

*The Innovation Factory (aka Golden Horseshoe Innovation Centre) will be funded through a combination of public sector (Province of Ontario MRI and potential City contribution) and private sector contributions will address the following six key areas required to build a strong innovative-based economy (City of Hamilton, 2010, p. 37).*

One of the six required areas to build a strong innovative-based economy was:

*‘Access to university research, colleges and key researchers’*

*Works directly with McMaster University and surrounding post-secondary institutions to facilitate access to university expertise and research and development capabilities. It will also establish a mechanism to transfer university-led R&D into commercial success stories (City of Hamilton, 2010, p. 38).*

In regards to the city-regions weaknesses in health and poverty, a main goal was to:

*To improve Hamilton’s quality of life and prosperity by encouraging institutions (like hospitals, schools, college and universities) purposefully with local communities to improve the health, skills, employability of local citizens at all ages and stages of life (City of Hamilton, 2010, p. 113).*

Through these two examples, it is clear that the economic development institution in the city-region of Hamilton emphasizes the importance of community and post-secondary education institution relations. Furthermore, when looking at the post-secondary education institutions, Mohawk College stated that ‘partnerships’ was a strategic goal and a strategic priority was to: “Develop and sustain strategic partnerships with business, industry, community, government and educational institutions to generate prosperity “(Mohawk College, 2009, p.4). In addition, McMaster University noted in the institutions mission statement: “We service the social, cultural, and economic needs of our community and our society (McMaster University, 2011, p.2). More specifically, one of the strategic priorities of the institution was to create ‘stronger connections’:

*McMaster cannot accomplish its mission without help and in splendid isolation. That is why we must actively search out prospective partners and establish a series of alliances, including partnerships with other universities, with industry, with local governments, with community colleges, with other educational bodies, and with health care institutions. We cannot serve the social, cultural, and economic needs of our community and our society without making an effort to convey the impact of our research and teaching beyond the bounds of the university (McMaster University, 2011, p. 5)*

All institutions analyzed in the city-region of Hamilton documented that community – post-secondary education relations was a strategic priority. Furthermore, when looking at the economic development institution in the city-region of Windsor the institution stated that it was imperative to, “Work with post-secondary institutions to support curriculum developing/growing industries in the region” (Windsor Essex Economic Development Corporation, 2011, p.18). This statement by the economic development institution of Windsor refers to specifically working with the post-secondary education institutions for the purpose of economic development. More specifically the institution stated:

*The Windsor-Essex region faces a significant out-migration of university and college educated people, showing a below-average percentage in the population compared to similar sized regions. Structural shifts in the economy require increased uptake of post-secondary education by the community at large, and retention of those individuals in the region (Windsor Essex Economic Development Corporation, 2011, p.18).*

Not only does this statement refer to relations between the community and post-secondary education institutions, but also in the context of retaining highly skilled graduates. The post-secondary education institutions in Windsor also found community-post-secondary education institution relations a strategic priority for their institution. St. Clair College noted that their fourth strategic priority was community partnerships. “Emphasis should be on increased our positive public image and our community involvement in training especially in the automotive and manufacturing sectors” (St. Clair College, 2010, p.1). Furthermore, the University of Windsor’s fourth strategic priority was to, “Engage the community in partnerships that strengthen the economy quality of life and well-being of Windsor-Essex region” (The University of Windsor, 2010, p.18). Thus all institutions in the city-region of Windsor share this common strategic objective.

All three institutions in the city-region of Kingston stated that a community- post-secondary education relation was a strategic priority. More specifically, the economic development institution in Kingston stated it was a priority to:

*Develop labour market strategies to support and assist local employers connect with potential employees, retain graduates from our institutions (Queen’s University, Royal Military College of Canada, St. Lawrence College), grow and retain skilled trades, and attract qualified employees to our city (Kingston Economic Development Corporation, 2011, p.1).*

More generally, the economic development institution in Kingston stated that partnerships were essential to their overarching economic development strategy and of the list of partners Queen's University and St. Lawrence College were noted.

*Partnerships are a critical component to our overall success. Building strong local, regional and extra-regional partnerships to develop collaborative activities enhance economic and tourism development capacity in our city and the greater region. Partnerships assist in adding greater value to what we do and drive success in realizing job and investment growth. Key partnerships have been forged with the following organizations to further KEDCO's strategic vision (Kingston Economic Development Corporation, 2011, p.2).*

The same desire showed by the economic development institution in Kingston, was also present in the local post-secondary education institutions. St. Lawrence College listed community engagement as a major focal point of their institutional strategy:

*As a Great Learning College we define Community Engagement as success in developing and maintaining partnerships within our communities and our region with key government, business and individual influencers. Through these synergistic alliances we will identify opportunities that create and support learning and business development opportunities, with a focus on relevance to college programming, destination careers, and to personal and professional growth (St. Lawrence College, 2010, p.3).*

Further, Queen's University also demonstrated strong engagement with the community by stating:

*As an institution, we need to be known as fully engaged with our various constituencies, aware of and responsive to our evolving globally-defined society. We need to build and mutually supportive relationship with our Kingston community, even as we our relationships with our province, nation and the international community (Queen's University, 2006, p.5)*

*As a public university, Queen's is committed to serving local, provincial and national needs through its programs of teaching and research. Our relationships with the City of Kingston, provincial and federal governments, and the private sector will ensure that we are responsive to the changing nature of educational demands and the many ways our programs can enrich the quality of life and productivity of our various communities. Our advocacy programs will position us*

*to secure the governmental resources required to fulfill our mission of research and education for the public good (Queen's University, 2006, p. 28).*

Through these transcripts from the strategic policy documents of the city-regions selected it is clear that all institutions within the city-regions have a dedicated focus on developing and progressing relations between the local community and the local post-secondary education institutions. Further discussion regarding the implication of these findings can be found in the chapter 6.

#### **4.4 Main Theme Indicator 4: Attract and/or Retain Highly Skilled to Post-secondary Education Institutions**

The fourth main theme indicator was selected to identify which institutions of the seven selected city-regions noted attracting and/or retaining the highly skilled to the post-secondary education institution in their respective city-region a strategic priority. While the sub-set indicator 'strategic priority' accounts for both attraction and retention, the following sub-set indicators in this section address whether the strategy was for attraction and or retention of faculty, as well as the attraction and or retention of students. This indicator allows for further insight into which institutions note that attracting and retaining the highly skilled to the post-secondary education institution is a priority. All results from the local post-secondary education institutions were referring to attracting and/or retaining students or faculty to their respective institution. In contrast, the economic development institutions did not have to specify which institution it was a priority to attract and/or retain students and faculty. As the literature suggests, attracting and retaining highly skilled individuals is a key component in the 'knowledge economy'. Further, scholars and the public widely acknowledge that highly skilled are produced



within post-secondary education institutions. It is important to assess how and to what extent the relevant institutions are promoting individuals to gain and enhance their skills at these educational institutions as well as what extent they are attracting and retaining the highly skilled for employment at these post-secondary education institutions. The sub-set indicators were developed to first understand if the institution in the city-region had prioritized the attraction and/or retention of students or faculty to the local post-secondary institution. This allows for a general understanding as to which of the selected institutions are concerned with this indicator. The following sub-set indicators evaluate to what extent. Thus, the remaining sub-set indicators specify attraction and retention separately as well as whether the document is referring to faculty or students. The results in *Table 5* indicate that post-secondary education institutions in each of the selected city-regions did to some extent state that the attraction and/or retention of the highly skilled to their local post-secondary education institutions was a priority. However, the extent to which each institution documented this indicator as a strategic objective varied. Moreover, only two economic development institutions noted attracting and retaining highly skilled to the local post-secondary education institutions as a strategic objective. The two economic development institutions that did state that this indicator was a strategic objective were Hamilton and Sudbury. However, Sudbury's economic development institution only implied that this indicator was a strategic objective. The disparity between the local economic development institutions and the local post-secondary education institutions regarding this indicator is not surprising given the differing mandate and agenda priorities of the selected institutions. However, this will be

further discussed in Chapter 6. The following sections will include results for all sub-set indicators and will be organized by city-region opposed to each sub-set indicator.

#### ***4.4.1 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: Hamilton***

The three institutions within the city-region of Hamilton were relatively engaged in attracting and/or retaining the highly skilled to the local post-secondary education institutions. The Hamilton economic development institution and McMaster University both stated it was a strategic priority. More specifically the Hamilton economic development institution stated:

*To foster growth in these endeavors the City needs to reach out to local and regional educational institutions to bring students in these fields of study to the area and to keep them here. Hamilton needs to become the “location of choice” for such graduates to help grow more creative industries from the ground up. The City needs to help foster appropriate programs in these educational institutions and to market these programs to the broader public (City of Hamilton, 2010, p.202).*

While the Hamilton economic development institution does not differentiate between the local University or College, McMaster University stated it is a priority to attract and retain students and attract faculty.

*This reputation for innovation allows us to attract and retain the top students from Ontario, other provinces and around the world, and these students go on to achieve great success in their lives and careers (McMaster University, 2011, p.35).*

*Research excellence and graduate education are inextricably linked. World-class researchers attract top graduate students, and top graduate students and postdoctoral researchers play an important role in expanding the University’s research reputation. But universities will also be faced with increased demand for broadly based interdisciplinary Masters programs as educational expectations in society rise. These programs will draw on research strengths, but typically in more than one area.*

*Target: To increase the importance of graduate education so that McMaster's graduate population reaches 20% of the University's total full-time enrolment and is highly ranked in indicators of graduate educational excellence (McMaster University, 2011, p.36).*

*Defining this distinct reputation is guided by the goals of the Refining Directions process and has the potential to influence significantly McMaster's ability to recruit top-quality students, staff, faculty, donors and other private and government supporters (McMaster University, 2011, p.38).*

In contrast, Mohawk College only implied that attracting and retaining faculty to the College was a strategic priority through policy 1.3 'Valued Employees': "Ensure a high performing, effective workforce and quality work environment to be an employer of choice" (Mohawk College, 2009, p.6). Overall, the institutions in the city-region of Hamilton did state generally that the attraction and retention of students and faculty to the post-secondary education institutions was a strategic priority, with some minor exceptions. Specifically, Mohawk College only implied attracting and retaining faculty was a strategic objective. Whereas McMaster University clearly documented the importance and strategic focus of attracting and retaining students to the institution, while noting the attraction of faculty as a priority but made no mention of retention. Finally, the Hamilton economic development institution did state the importance of attracting and retaining students to the local post-secondary education institutions however did not mention faculty.

#### ***4.4.2 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: Kingston***

In the city-region of Kingston, both post-secondary education institutions noted that attracting and retaining the highly skilled to their respective institution was a strategic priority. However, the Kingston economic development corporation made no reference to attracting or retaining either students or faculty to the local post-secondary

education institutions. Further, Queen's University noted that this main theme indicator was a strategic priority for all sub-set indicators with the exception of retaining students. While St. Lawrence College only referred to the retention of students and neglected to mention attracting or retaining faculty.

Queen's University's first strategic goal was to: 'build on undergraduate and professional program strengths to provide a distinctive and sought-after educational experience' (Queen's University, 2006, p.19). Under this strategic goal, the following objectives were noted.

*Recruit, develop and retain faculty of outstanding calibre, characterized by an intense commitment to inquiry-based education through exceptional teaching and research*

*Successfully recruit the most highly-qualified students with the greatest potential to benefit from this distinctive educational experience and use their education to contribute to society.*

*(Queen's University, 2006, p.19)*

Queen's desire to attract students and faculty was not limited to these statements, as various strategic goals in place by Queen's University reiterates the importance of attracting the best graduate students and researchers. Moreover, St. Lawrence College only focused on the retention of students and student success within the college. Under the strategic goal of 'Learning Excellence', St. Lawrence College noted, "The learning experience is enhanced by programs that support learner retention and by ensuring excellence in customer service" (St. Lawrence College, 2010, p.3). To achieve this strategic goal, the college noted the following:

*Evaluate college-wide learner support services and develop action plans to enhance their effectiveness for learner success*

*Examine college program delivery for optimal relevance, flexibility, and service to learners with increasing needs and expectations (St. Lawrence College, 2010, p.3).*

Overall, the city-region of Kingston and the respective institutions were found to be less active in documenting strategic objectives to attract and retain students and faculty to the post-secondary education intuitions, with the exception of Queen's University.

#### ***4.4.3 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: Kitchener-Waterloo***

Kitchener-Waterloo's post-secondary education institutions were very active in stating the need to attract and retain students and faculty to their respective institutions. In contrast, neither the Waterloo nor the Kitchener economic development institutions mentioned this indicator in any capacity. Alternatively, the University of Waterloo stated that attracting and retaining both students and faculty were strategic objectives of the institution, whereas Conestoga College stated the importance of attracting and retaining students. However, only implied attracting and retaining faculty a strategic priority.

The city-region of Kitchener-Waterloo is a unique case in this study, as the region host's two universities, the University of Waterloo and Wilfred Laurier University. Between these two post-secondary education institutions the strategic objectives pertaining to this indicator were significantly different. The University of Waterloo was much more active in noting the attraction and retention of students and faculty as a strategic priority to the respective institution. Specifically, the University of Waterloo stated that under academic programming, if the University of Waterloo is to achieve the desired goals of academic excellence, each academic program is expected to attract

excellent students (The University of Waterloo, 2007, p.6). However, this is not the only case the institution referenced the need to attract quality students. For example, regarding undergraduate students the University of Waterloo states to be competitive the institution will have to achieve a list of goals to attract top undergraduate students from Canada and internationally. Among the goals desired, the University noted it needed to 1) “be in the top three in Canada in attracting first-year students with 90% plus grades and 2) admit 75% of first-year students who are eligible for scholarship support” (The University of Waterloo, 2007, p.7). However, in terms of retention, the university stated that within student support services the university will engage academic support staff and faculty to meet the following metrics:

- *The best Year One transition program in North America, including an institutionally supported ‘rescue’ program:*
  - *High student satisfaction with initial course selection process*
  - *High recovery/success rate for those identified as in academic jeopardy*
  - *Higher retention of Year One students*
  - *The best student academic advising process*
- (The University of Waterloo, 2007, p.9)*

Furthermore, the University of Waterloo did not limit recruitment and retention interests to students alone, as attracting and retaining high quality faculty is a strategic goal. “To achieve its academic excellence goals, UW will recruit and retain the very best faculty members available, competing with top North American universities” (The University of Waterloo, 2007, p.9). While the University of Waterloo places high importance strategically on attracting and retaining the highly skilled and future students to their respective institution, Wilfred Laurier University did also note that attracting students to their institution was a strategic priority with an emphasis on international students. “Improve student recruitment strategies through more active faculty

engagement and scholarship offerings. Develop and implement a plan for out-of-province and international recruitment, addressing the 5% goal for international students”(Wilfred Laurier University 2005, p.6).

In addition, Wilfred Laurier University also set a goal to increase the number of graduate students to 50 percent by 2011 (Wilfred Laurier University, 2005, p.4). However, Wilfred Laurier University only mentioned the attraction of students to their institution. Moreover, the final post-secondary education institution in Kitchener-Waterloo is Conestoga College. Conestoga College did state that attracting and retaining highly skilled and future students to their institution was as strategic priority, with a greater emphasis on the attraction and retention of students. In terms of achieving growth Conestoga College noted a number of activities to support the institutional plan through the attraction and retention of students, which included:

- *The development and launch of increased program choices for students.*
- *Identifying and eliminating barriers to access for under-represented groups.*
- *Increased participation in the School College Work Initiative project.*
- *The development and implementation of articulation agreements with universities.*
- *Increased retention through improved student engagement.*

*(Conestoga College, 2010, p.22)*

Furthermore, under the institutional goal of ‘Operational Excellence and Accountability’ and the objective of ‘Full-time Post-secondary Enrolment Management’, it was stated that increasing international student enrollment at the college was a strategic objective (Conestoga College, 2010, p. 36). Additionally, Conestoga College placed emphasis on the retention of students. Under the goal of ‘Student Success’, the objective was ‘Student Engagement and Retention’, which was to be achieved through:

- *Increase student retention through admission standards and processes and the adoption of intervention activities.*
  - *Improve overall student retention rates*
  - *Undertake an analysis of course failure rates. Identify and address issues that may reduce the number of students being placed on probation or being discontinued.*
  - *Examine retention impact of career development, academic readiness and academic advising.*
  - *Implement more literacy and numeracy programs such as Smart Start.*
- (Conestoga College, 2010, p.29)*

In terms of attracting faculty, Conestoga College noted under the strategic goal of ‘Academic Leadership’ and objective of ‘Quality in Program Design’ that the institution is to: ‘Increase number of degree faculty holding doctorates or terminal degrees, in accordance with PEQAB requirements’ (Conestoga College, 2010, p.23). This strategic objective not only clearly states that the attraction of faculty to the institution is a priority, but also that the retention of faculty is implied.

Overall, the post-secondary education institutions in Kitchener-Waterloo were very active in attracting and retaining the highly skilled and students to the post-secondary education institutions. While the University of Waterloo and Conestoga College were the most active in terms of this main theme indicator, Wilfred Laurier University did make note of attracting students. In contrast, the economic development institutions of the region did not note attracting and retaining the highly skilled to the local post-secondary education institutions as a strategic priority.

#### ***4.4.4 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: London***

In the city-region of London both post-secondary education institutions noted that attracting and retaining the highly skilled to their respective institution was a strategic priority, while the London Economic Development Corporation did not. Western



University indicated the attraction of students and the attraction and retention of faculty were vital components of their strategic objectives. Western also stated through the policy document that the attraction and retention of faculty were highly related to the success of attracting students. “The presence of outstanding researchers and research programs is essential in attracting potential faculty, graduate students, and undergraduates and postdoctoral fellows” (Western University, 2007, p.4). Further, Western noted the importance of offering attractive programming to further attract the best students to the campus. “All Ontario universities are now competing for highly qualified graduate students. In order to attract the best students, we must offer programs and services for graduate students that are second to none in Canada” (Western, 2007, p.12). Further, Western University stated they would, “Stimulate recruitment through ensuring and promoting the quality and value of Western’s graduate programs. We will make special efforts to attract award-winning students by engaging and supporting faculty members to be the leaders of this process” (Western University, 2007, p.15). In addition, Western University did note the importance of retaining students, however focused primarily on international students. “In an institution of international stature, particular attention is necessary to the recruitment, retention and support of an increasing number of international graduate students” (Western University, 2007, p.13). Students were not the only focus for attracting and retaining within Western University, as the attraction and retention of faculty was also noted as a strategic objective.

*Invest in the resources that faculty need to do their work, so that Western is able to recruit and retain outstanding colleagues. Those resources include competitive compensation, space and laboratories, an excellent library, effective and available information technology, and a safe, attractive, family-friendly campus (Western University, 2007, p.24)*

*Increase the number of women among newly-recruited Probationary/Tenured faculty; increase the retention of the women faculty we do recruit; and promote a career balance that ensures that service responsibilities carried by women to maintain gender equity are not greater than for men (Western University, 2007, p.24).*

In addition, Fanshawe College noted the attraction and retention of highly skilled to their institution as a strategic priority, however focused solely on students. According Fanshawe College's strategic policy A-40 'Meeting Labour Market Needs', within the sub-section 'Support Strategic Growth in Current and New Markets, both Domestic and International', the College highlights the importance of attracting students to the institution with an emphasis on international students.

*Based on analysis of historical and current application statistics, including an overlay of applicant demographic shifts, the College will introduce a number of new strategic applicant conversion strategies to improve applicant conversion to registrant rates, thus maximizing enrolment levels (Fanshawe College, 2011a, p. 43).*

*Process review initiatives within the Office of the Registrar and International Partnerships will focus on streamlining the recruitment, admissions and transition of international students to Fanshawe College and the London community. The Office of the Registrar will also increase pre-admissions and financial aid outreach and advising services within the community, focusing on the diverse prospective student population and their influencers. Target populations may include: first generation, immigrant and mature applicants as well as other prospective students (Fanshawe College, 2011a. p.43)*

Furthermore, Fanshawe College stated that not only was it a strategic priority to attract students to the campus, but also retain students and provide strategies to assist in doing so. According to strategic policy A-35 'Student Success', Fanshawe College states:

*Currently, 34% of students at Fanshawe are considered 'at-risk' due to their secondary school math and/or english grades. The College has invested in retention and student success strategies in an effort to assist students achieve*

*their educational goals. Continued investments will be necessary (Fanshawe College 2011a, p.8).*

While Fanshawe College's strategic policies accentuate attracting and retaining students to the institution, there is no policies or strategic objectives highlighting the attraction or retention of faculty. Both Fanshawe College and Western University are active in bringing students and the highly skilled to their respective institutions. However, Western University's strategic plan is more comprehensive regarding this main theme indicator. In contrast, the London Economic Development Corporation did not note attracting and retaining students or the highly skilled to the local post-secondary education institutions a strategic priority.

#### ***4.4.5 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: St. Catharines-Niagara***

In the city-region of St. Catharines-Niagara the attraction and retention of highly skilled to the local post-secondary education institutions was only a strategic priority of the post-secondary education institutions. Brock University stated all sub-set indicators were strategic priorities with the exception of retaining students to the institution. Brock University's Strategic goal two was to, "Support Brock's undergraduate student-centred focus while maintaining excellence in graduate education" (Brock University, 2010, p.5). Within this goal, the strategic priority was to "Attract high-quality students and graduate reflective, knowledgeable and engaged alumni" (Brock University, 2010, p.5). To achieve this strategic priority, Brock University stated the following as strategic actions and their subsequent measures:

- Expand undergraduate and graduate recruitment initiatives targeting primary student pools*
- Enhance engagement initiatives*

*•Undertake fundraising to support competitive entrance scholarships and research wards*

*Measures:*

- Increased number of first-choice applications acceptances annually*
- Increased undergraduate entrance averages annually, benchmarked internally and externally*
- Number and amount of student scholarships and awards*  
(Brock University, 2010, p.5)

In addition, Brock University's first strategic goal is to, "Ensure Brock is a preferred place to work and study" (Brock University, 2010, p.5). Within this goal, a strategic objective is to "Recruit and retain exceptional faculty and staff" (Brock University, 2010, p.5). Therefore, Brock accentuates the attraction and retention of faculty and the attraction of students to their institution. In contrast, Niagara College did not state a strategic priority was to attract students, however noted that the institution would, "Increase student retention and success, supporting the achievement of career and educational goals" (Niagara College, 2009, p. 12). While only the retention of students was noted by Niagara College as a strategic objective, the college stated that the attraction and retention of faculty was of great importance. "We will recruit, retain, and develop the most talented faculty to teach our students. We are transforming our facilities to ensure they support our programs and provide leading edge learning environments (Niagara College, 2009, p.11).

Overall, the post-secondary education institutions in St. Catharines-Niagara are quite active in the attraction and retention of the highly skilled to their respective institutions. However, there are small differences between the institutions in terms of the sub-set indicators. The economic development institutions made no strategic objectives

of attracting or retaining students or faculty to the local post-secondary education institutions.

#### ***4.4.6 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: Sudbury***

In the city-region of Sudbury the attraction and retention of the highly skilled to the post-secondary education institutions was predominately initiated by the local post-secondary education institutions. However, the Sudbury economic development institution implied that attracting students to the local post-secondary education institutions was a strategic priority. In the strategic plan the economic development institution was promoting and emphasizing the importance of the local post-secondary education institutions as a growth engine in the economic development of greater Sudbury. The document noted that one of the top economic opportunities over the next three to five years was, “university and college growth, enhancing our research capabilities and being the education centre of northeastern Ontario” (Greater Sudbury Development Corporation, 2009, p.5). Further, it was stated that the economic development institution was to, “promote Greater Sudbury as a leader in post secondary education, research and innovation” and “Close the gap in the proportion of graduate spaces between Northeastern Ontario and the rest of the province” (Greater Sudbury Development Corporation, 2009, p.22). While these statements by the Sudbury economic development institution do not clearly state that their strategic objective is to attract students to the local post-secondary education institutions, it is implied.

In contrast, Laurentian University stated strategic objectives in all sub-set categories to attract and retain both students and faculty to their respective institution.

Laurentian University made numerous references to attracting students to the campus, with specific references to francophone and native students:

*Implement an integrated enrolment management plan that will effectively coordinate the efforts of a range of departments and services, including alumni relations, in order to attract the maximum number of prospective students and then convert as many as possible to registrants (Laurentian University, 2008, p.8).*

*Taking advantage of targeted funding, develop Francophone programming; expand existing course offerings or programs and add new ones, to attract and retain Francophone students, serve Francophone communities and better reflect our mission (Laurentian University, 2008, p.7).*

*Taking advantage of targeted funding, potential partnerships and other opportunities, develop a broader range of programs that are Native-specific, or designed to address the needs of Native students, to attract and retain Native students, serve Native communities and better reflect our mission (Laurentian University, 2008, p.8).*

Moreover, another strategic goal of Laurentian University was “to ensure a respectful and fruitful learning environment and workplace for students, staff, faculty and volunteers; to enhance the health and quality of life of the communities in which we live by serving: Our internal community; Our alumni; Our volunteers; Our partners; and Our community”(Laurentian University, 2008, p.11). In regards to serving ‘our internal community’, Laurentian University stated it was a strategic objective to “continue efforts to attract and retain excellent staff, faculty and administrators, with particular attention to recruiting members of underrepresented groups” (Laurentian University, 2008, p.11). Therefore, Laurentian University had made it a strategic priority to not only attract and retain students to their respective post-secondary education institution, but also faculty.

In addition, the other post-secondary education institution in the city-region of Sudbury is Cambrian College. Cambrian College did note that the attraction and retention

of students was a strategic priority, however only referred to aboriginal students. More specifically, Cambrian College stated it would generate innovative growth by “strategic recruitment and retention of aboriginal and adult learners (Cambrian College, 2009, p.1). Cambrian College did not indicate any other strategic directions or objectives referring to the attraction and retention of students or faculty.

#### ***4.4.7 Attract and/or Retain Highly Skilled to Post-secondary Education Institutions: Windsor***

In the city-region of Windsor, the University of Windsor and St. Clair College were the only institutions to state attracting and retaining the highly skilled to post-secondary education institutions as a strategic priority. The University of Windsor stated that the attraction and retention of students to their respective institution was a strategic objective, however emphasized the importance of international students opposed to domestic. The University of Windsor’s strategic goal number five was to: “Promote international engagement through student recruitment, student and faculty and staff exchanges, and partnerships that complement our teaching and research strengths” (University of Windsor, 2010, p.20). Within this strategic goal, one of the strategic objectives was to, “Compete effectively at a global level to attract and retain the best international students and manage international student enrolment opportunities sustainably in the context of institutional and program capacity and priorities” (University of Windsor, 2010, p.20).

While this objective does explicitly note attracting and retaining students to the institution, there is no mention of domestic students within the policy document.

Furthermore, strategic priority number three for the University of Windsor was to “attract and retain the best faculty and staff”(University of Windsor, 2010, p. 16). Thus, the University of Windsor both notes that attracting and retaining students and faculty to their respective institution as a strategic priority and objective.

In contrast, St. Clair College did not state attracting and retaining faculty to the College as a strategic priority. However, did explicitly note the attraction and retention of students as a strategic objective. For example, strategic category number three for St. Clair College is ‘Enrolment’. Within this strategic category, two of the strategic objectives are relevant to the abovementioned indicators. First, regarding the attraction of students the College stated it would, “Improve first year enrolment by a minimum of 4% for September, 2008 and an additional 4% for September, 2009” (St. Clair College 1, 2010, p.3). Second, in regards to student retention:

*Develop and implement a learning success and retention model based on the early identification of at-risk students, early intervention and the provision of appropriate supports and resources. Increase retention for current students by 1% for Fall, 2008 and an additional 1% for Winter, 2009 (St. Clair College 1, 2010, p.3).*

Further, in an updated version of the policy document St. Clair College reiterated the importance of enrolment growth and student retention:

*Enrolment growth continues to be a driving force in post-secondary education for the Government of Ontario. Retention, articulation agreements, the development of new applied degrees, new programs that identify St. Clair College as a “Destination College” and the impact of the international students are all important components in enrolment rationalization (St. Clair College, 2010, p.2).*

Through these statements, it is clear that St. Clair College and the University of Windsor have noted that the attraction of highly skilled to their respective post-secondary



education institutions is a strategic priority. There is a distinct difference between the two institutions, as the University of Windsor stated that the attraction and retention of students and faculty were strategic priorities and St. Clair College only found strategic importance in the attraction and retention of students. The economic development institution in the city-region of Windsor made no reference to the attraction and retention of students or faculty to the local post-secondary education institutions.

#### **4.5 Conclusion**

This chapter has focused on presenting the results of the policy document analysis found in *Table 5*. The results displayed detailed accounts of each of the seven city-regions economic development institution and post-secondary education institutions stance according to their high order strategic policy documents regarding indicators developed in this study. The indicators were developed to act as a measure to understand how and to what extent institutional relations are leveraging post-secondary education institutions to attract and retain the highly skilled individuals in medium-sized city-regions of Ontario. The results varied across city-region and each institution. Analysis of the results and implications of such results will be discussed in Chapter 6. The following chapter is a critical case study on the city-region of London, presenting results of key informant interviews from the London Economic Development Corporation, Western University and Fanshawe College. This critical case study of the city-region of London is to compliment and further investigate the results found throughout this policy document analysis.

## Chapter 5

### Results: Critical Case Study of London City-region

#### 5.1 Introduction

This chapter presents the results from the critical case study of London, Ontario. The purpose of this case study is to complement, aid and validate the findings of the policy document analysis presented in Chapter 4. Similar to the policy document analysis, this case study in the city-region of London was designed with the aim to further investigate the overarching research question: how and to what extent have institutional relations leveraged the presence of post-secondary education institutions to attract and retain the highly skilled in medium-sized city-regions of Ontario? Thus, the purpose of a case study of London, Ontario is to answer the research question through key informant interviews with informants that hold relevant positions within the economic development institution, the university and the college of the city-region. The chapter has been separated into six themes, which are further divided by institution. The themes were derived from questions and subsequent responses generated from the interview guide (See *Appendix A*). Please refer to *Table 6* for a summary of the findings presented in this chapter. The results of this chapter can be further evaluated and compared with the results of the policy document analysis in Chapter 4. This will occur in detail in Chapter 6, discussion and conclusion.

**Table 6: Summary of Case Study Results**

<b>Institution</b>	<b>Section 5.2</b>	<b>Section 5.3</b>	<b>Section 5.4</b>	<b>Section 5.5</b>	<b>Section 5.6</b>	<b>Section 5.7</b>
<i>Key Informant</i>	<i>Attracting and Retaining the Highly Skilled to London Contributes to Economic Development?</i>	<i>How is London Performing Attracting and Retaining the Highly Skilled in London?</i>	<i>Institutional Relationships: An Effective Means for Economic Governance?</i>	<i>Institutional Relations Attracting and Retaining the Highly Skilled to London: Who is Responsible?</i>	<i>Barriers and Factors for Successful Institutional Relations</i>	<i>Collaboration between academia, industry and government was an appropriate option to attract and retain graduates or highly skilled individuals in London?</i>
<b>LEDC</b>						
<i>Key Informant #1</i>	Significant	Not Sure: Stated it was hard to measure.	Important	LEDC has a role.	Leadership and finding mutual benefit amongst collaborating institutions.	Implied Yes
<b>LEDC</b>						
<i>Key Informant #2</i>	Fairly Significant	Fairly Good	Important	LEDC has a role.	Finding mutual benefit amongst collaborating institutions.	Yes
<b>UWO</b>						
<i>Key Informant# 1</i>	Significant	Not very good: Not as well as the city would like	Important	Theoretically and technically, Western University does not have a role.	Differing institutional processing times can be a barrier.	Yes
<b>UWO</b>						
<i>Key Informant # 2</i>	Significant	Not Sure	Important	Western University has a role, but referred mostly to recruiting and retaining talent on campus.	Leadership/Communication and finding a mutual benefit amongst collaborating institutions.	Yes
<b>Fanshawe</b>						
<i>Key Informant #1</i>	Fairly Significant	Not Sure	Important	Fanshawe College has a role.	Leadership and finding a mutual benefit amongst collaborating institutions.	Yes

## **5.2 Attracting and Retaining the Highly Skilled to London Contributes to Economic Development**

All key informants interviewed from the London Economic Development Corporation, Western University and Fanshawe College all agreed that the concentration of the highly skilled in a city-region is a key factor that contributes to economic development. The key informants were asked: In your view, to what extent does the concentration of highly educated/skilled individuals in a particular city-region contribute to economic development? The question was posed to gain insight into the key informants view of the importance concentrating highly skilled in a given city-region for the purposes of economic development. This insight will assist in further investigating the overarching research question of this study, and allow for an understanding of how key members of the three institutions in the city-region of London feel about the attraction and retention of the highly skilled. The key informants responded with minimal variation, indicating that the importance of attracting and retaining the highly skilled to a city-region is important for local economic development.

More specifically, when speaking to the first of the two key informants from the London Economic Development Corporation the key informant stated in response to the importance of attracting and retaining the highly skilled to a city-region that, “It is a very significant component, obviously both the intellectual power, the drive the expectations that come through that can when well harnessed can be a key community success ingredient (LEDC 1). The key informant felt strongly about the need for the concentration of the highly skilled for local economic development, which is important given the influential nature of the key informants position pertaining to economic

development in London.

The second key informant from the London Economic Development Corporation stated the following in response to the above-mentioned question:

*Well its fairly important for us from the standpoint, particularly in our sector based opportunities. One of the things we see as a real key, you can try and grow and develop new opportunities...I always hear people throw out generally knowledge base jobs, but I think the key to that is you can't develop that knowledge base positions if you don't have the talent. And part of what drives your talent, is what you already have, your key advantages in. So in London, what sectors do we really have that, those key elements are in place? And how do we interface that in conjunction with having the talented workers to get positions? (LEDC 2).*

While this key informant clearly indicates the importance of the concentration of the highly skilled in a city-region. The informant also stated the importance of specifically aligning the needs of the community in terms of labour market supply and demand in the context of knowledge-based jobs. Further, the key informant notes the importance of leveraging the assets in the community to achieve success in the alignment of the supply and demand of the local labour market. Overall, both key informants from the London Economic Development Corporation stated the concentration of the highly skilled is important in contributing to local economic development.

Furthermore, when speaking to key informants from Western University their responses suggested that the concentration of the highly skilled was imperative for local economic development, particularly in the era of the knowledge economy. In response to the above-mentioned question the first key informant stated:

*Well, I think it contributes a lot, and I think we see evidence from that all over the world. I think what Toronto did with the Mars district at College and University, attempting to bring talented people from all over, not just Toronto but Canada*

*and all over the world to start companies to work in research facilities, to have a landing pad to develop their skills as entrepreneurs. Much more importantly you see that in Silicon valley...so that whole district from San Francisco south to San José which is home to Google and Apple, everybody almost in town. These little towns are hotbed entrepreneurs and a lot of them, and from all over the world, Western probably has about 200 alumni in that area alone, or working there now and Waterloo probably has thousands. So that area has become the centre for development of the high-tech industry. So not only does it depend on graduates say from places like Stanford, which is right there in the middle of it but also grads from all over the world, and Microsoft does recruiting at Waterloo. So obviously they know how important that is to local economic development and there is a real spirit of entrepreneurship there as well.*

*So I think it's critical, if you can't retain...I think it's all about talent anymore, if you cant retain these people or attract them you know you're going to be stuck in a traditional economy and not go anywhere to attract bright people and keep them (UWO 1).*

Interestingly, this key informant highlighted the importance of keeping talent in a given community for the purposes of economic development, suggesting that if a community fails to do so then there is little hope for economic progress. The second key informant from Western University acknowledged the relation between economic development and the highly skilled, from the perspective of industry and post-secondary education institutions.

*So it would be huge, the correlation has to be approaching one, from the point of view of not only servicing the industries, using that term to reflect both the educational institutions and the industry, not only to service the people who are here and require work to be here now. But also, it's a huge attractor, its one of the things that gives rise to peoples questions whether people want to locate here. Again, both from an industrial point of view, do we want to bring our industry to London? Because there are people in proximity, in close proximity who can service our industry in the way we want it serviced. And on the academic side, decisions taken by top quality faculty members and recruits are who's at Western? What kind of school is Western? What is its status? What is its status at the departmental level? What is the research engine and spires like? Do I see myself; is that a positive step in my career? Because to attract those individuals here, requires confidence that what we have to offer here is advantageous to them (UWO 2).*

This key informant notes that the concentration of the highly skilled is not only advantageous for industry in terms of meeting local labour market demand, but also in terms of leveraging future recruitment of the highly skilled for Western University itself. Both key informants from Western University appear to be strong advocates for the attraction and retention of the highly skilled for purposes of local economic development.

In addition, a key informant from Fanshawe College implied that the concentration of highly skilled is fairly significant for local economic development, but specifically suggested that post-secondary education is imperative for any meaningful employment. “Well it depends on the study you read. And there is a correlation that clearly a secondary education correlates to a job but there newer studies are suggesting that you need post-secondary education increasingly to secure any meaningful employment” (Fanshawe 1). It is clear that through the response of this key informant that the concentration of the highly skilled is fairly significant for economic development, but more specifically is essential for any and all meaningful employment opportunities.

All of the key informants from the London Economic Development Corporation, Western University and Fanshawe College strongly advocated that the concentration of the highly skilled in a given city-region is fairly important if not essential for local economic development. The implications will be further discussed in chapter 6, however these findings highlight that influential individuals within these three institutions all acknowledge and support the concentration of the highly skilled as an essential means of local economic development.

### **5.3 Key Informant Perceptions: London's Performance**

Key informants perceptions on how the city-region of London is performing in regards to the attraction and retention of the highly skilled is very important to evaluate when investigating this studies overarching research question. The key informants were asked, "How do you feel London is performing in terms of attracting and retaining highly skilled individuals"? The responses varied between key informant and even within each institution. In regards to the London Economic Development Corporation, of the two key informants interviewed, one felt London was doing a fine job and the other felt London was doing as good as they could be expected too. Further, of the two key informants interviewed at Western University, the first suggested that London is not doing as well as they would have liked, while the other was unsure how London was performing, suggesting that there are more students who want to stay in London then there are jobs available. The key informant from Fanshawe College chose to avoid stating how London was performing as a whole and focused on the statistics available from the college. Stating that Fanshawe College is a net importer of talent to the city-region of London.

#### ***5.3.1 Key Informant's Perceptions: London's Performance: London Economic Development Corporation***

The first key informant from the London Economic Development Corporation was asked how London was performing in terms of attracting and retaining the highly skilled and responded:

*Hard to measure, I mean, we know that when people come with a mindset to London [referring to students], of going somewhere else, unless there is an engagement before that. It is very easy, given Western's lovely campus to stay campus focused, rather than community focused. So we are thinking of ways to build that linkage more strongly. So I would say that we are doing ok, but I don't think we're doing as well as we could (LEDC 1).*



Further, the key informant was asked why London was not performing well? The informant stated:

*At the moment, there is a skills miss-match between current and emerging sectors, and the current workforce, i.e.: those people looking currently for work. I am not talking about what the educational institutions are producing, although there are some skills miss-match there. In other words they haven't re-tooled some of the programs to develop the skills the employers are looking for. On the other hand, some employers are looking for people who really have had 5-7 years works experience, which you can't just get. You can't instantly make that adjustment.*

*On the other hand, some of the local businesses are not making earlier opportunities whether it be co-op, summer student experiences, which we're encouraging them to try think about how they might do that. And that would be more attractive to a student, if the students paying, I mean normally landlords are renting for the year, paying for 8 months, why not if you're here, stay (LEDC 1).*

Again, the mismatch of skills and labour market supply and demand appears to have fallen out of alignment, and there are limited opportunities from the private sector catering to skilled youth employment. The key informant was asked if amenities and culture play a role in the attraction of retention of the highly skilled in London?

*A lot, if your young and your, you want to work hard and play hard, so it depends on socially and culturally what your origins are and what you expect. To many, well just chatting to various students, London is attractive to many students from small communities, because it's not the big city. London is attractive for parents because it is perceived as safe, right and more of a campus than a downtown orientation. However, once you're making the transition from school to work you want interesting places to go, so London still has to step it up a notch in terms of its night life and social engagements. And in a different way than just you know...Barneys is great but (LEDC 1).*

The informant was then asked if there were any other factors to make London more attractive? The key informant responded:

*I think its profile too, one is to engage students while they're in the educational institutions to see London, so how do we open London's, the door for London and those opportunities, so that's one. Secondly, where the key features, if London is a lower cost place to live than lets say Toronto. So if you want to start your career, what happens if they're from the area or been in London, they either come back to*

*London after 15 years of working, because they now know it is a great place to raise their family. It is also interesting to see how many people come back in their late 50's, there is a whole other cohort, they think London is a great place to retire too. It's got the right combination of amenities, access to airports, access to Stratford, access to beaches, it's got a lot going for it, but I am not sure if you are a student engaged, you're not actually seeing that it is 40 minutes to a beach, and 30 minutes to another. You can commute from outside London. I am not sure we are selling the benefits...(LEDC 1).*

The London Economic Development Corporations second key informant was quite confident in stating that London was performing well in terms of attracting and retaining highly skilled individuals to the city-region of London. The key informant felt there is a large misconception that students are leaving the city-region of London in large numbers due to the medias misperception. Further the informant noted Western University is a neutral in terms of the institutions contribution of the highly skilled, as the same percentages of students that are from London attending Western University actually stay. The informant further states that Fanshawe College is a net importer of talent, and stated that a significantly higher amount of students stay in London after graduation than come from London to attend Fanshawe College.

*Well I think London is doing fine on attraction of highly skilled individuals. The misconception is that students leave in huge numbers, the reality is, again there hasn't been an actual study done since 2007. But I don't believe that the numbers have really changed. We know from the college they have done their own study and that has changed for them. But for the university 15 percent of students come from what is Western's local catchment area and what we find is that 15 percent of the students remain in London. Now they are not all the same 15, because we have people that come to Western and then elect to stay in London, so what we're in is a net exchange. We keep about the same number of people who came to Western of the 15 percent of the local catchment area, and the same 15 percent stay in London. The issue that we have been trying to do, if we could get 1 or 2 or 3 percent more of those students, if we could go for 15 and a net positive of 3 percent or 2 percent that would be our goal of what we're trying to do. But there is this perception in the media that everyone that shows up at Western and leaves again. It's incorrect. Now with the college we have a different situation, in the college 60 percent of their students come out of the local catchment area. 40 percent for their students are coming from outside of the traditional catchment*

*area, yet 85 percent of Fanshawe students are staying for employment in London, in the London region. So what we're having happening is the university students actually are staying net even, where as the college side is providing the growth and employment in the city (LEDC 2).*

Moreover, the informant suggested that the type of job is an important factor when looking at whether a university student is to stay in the city-region of London due to the jobs available for the individual. Thus, it is a labour market demand side issue.

*But given the sectors that we are supporting its not surprising, because the university is really again...there is a lot of graduates coming to the university system, that a) depending the kind of job... one interesting thing done in a study done two years ago is almost 20 percent of the students graduating actually said they were most interested in a government job. But we're not a headquarters for government jobs here, we have regional branch offices (LEDC 2).*

The informant stated that many individuals go to the big cities such as Toronto first, and then the desire to return back to London increases due to the lower cost of living available in London. The informant felt that the cost of living in London is a big success factor for the re-immigration of skilled workers, which occurs later in the life and employment cycle. Further, the informant felt that attracting the individuals later along in their career and life cycles is most important to the city-region of London.

*But generally what happens there, people go to Toronto first, because there's no cost of living adjustment. What everybody wants to do is get back to London, or get back to one of the regional centres, because then you're making exactly the same money in a market where you can raise a family and housing costs are half or 40 percent of the cost of those other areas. And that to me is the other big win that we get, because we have a significant re-immigration back to London of people particularly in the 28-35-age range. People who have lived in Toronto have gone through the first, second third stage of career wherever they are. And then they say I'd like to get back to London. Because its way cheaper, I can get way better quality of life, way better to raise a family way cheaper to own property and that's still occurring in a big way for us. That's actually, we'd be most concerned with if we lost, because the reality is your aren't going to keep the people here in London, people want a world experience...because we can never expect to offer the services and the entertainment value and the certain things that a community like Toronto can offer, it's just unrealistic that you can. We do a*

*pretty good job with what we have, but we can't ever offer to that level. But the quality of life should always be something that will attract people back, and if people aren't coming back for that quality of life, than we have a major issue (LEDC 2).*

When the informant was asked how they felt London was performing in terms of attracting students from outside of London into the region, the informant responded:

*Well we do a phenomenal job, in both cases, the catchment areas of the local area; we actually get more students from outside of our local catchment area. So London does a good job attracting students into the institutions, and I think everybody knows that. Western if you rank, it's #1 student experience in Canada for three years in a row, and Fanshawe the same thing...(LEDC 2).*

In addition, the key informant was asked if the attraction of mid-career individuals was more of the focus compared to those who have recently graduated?

*Well we do a lot to attract the people to the jobs that we have available. But like I say there are whole segments that we can't support, like if somebody wants to, like a great example is the teachers college, there's just not going to be there. Like chemical engineering, we have 200 graduates out of chemical engineering programming, there's maybe 5 companies in town that have a chemical engineering component to it that satisfy what they're looking for. But the balance that they're going to have to go into the petro chemical industry, maybe they go to Sarnia; realistically they are probably going west for work or Toronto, because we just don't have those jobs. So I think relative to the job availability that we have we are doing real well. I think again a lot of times that it is over stated, that the students flee in droves, and I think our biggest in my mind isn't the first job, I think the biggest challenge for someone who stays in London, is that if they want to stay specifically in that company they have difficulty, because people when they come to London and particularly because the 27-35 year olds come back to London male or female, they tend to get into a job and don't leave it. One thing you'll find in London on a percentage basis we have a much lower turnover rate of all job positions relative to the GTA, Hamilton or Ottawa some of the bigger communities. Because people won't move, they get into a job and lock in, I call it 'Londonitis', people don't want to leave London once they are here and established (LEDC 2).*

Regarding attracting the youth in London the informant noted that there were difficulties finding employment for the skilled youth due to the organizational structure of many firms in London.

*So one of the problems that we do have, a younger person say going into to a say 3M Canada or another company, it's very difficult for you to move up through the organization on a path that you may want, without going to an outside company. And so that's a frustration for people here, and to me that's a bigger challenge, people end up making lateral moves a lot of times. We don't have enough small vertical moves between companies or within companies for people to reach their job goals and that's part of the bigger issue I think we have relative to the job market here. I don't think there's a lot of trouble if somebody is well qualified for people to find the first job, but can they get the career path for the second and third job without leaving the city? (LEDC 2).*

Moreover, the informant felt that the quality of life is one of London's greatest assets when asked, "Why do you feel London is performing well"?

*Now, for getting back to the quality of life issue, if you've got the skills and you have a particular area you want to work in, we don't have any issue here, for instance for the IT and the digital media companies we have over 400 open jobs we can't get the right people for. The companies have open. A perfect example with the head of HR told me at 3M, they put out a job application for a process engineer working in the plant, and they got 7 resumes, which really doesn't give them enough resumes to see the people coming in. And yet if they put an opening for a plant worker, they'll get 400 to 500 resumes. And so, the issue is that we have that disconnect taking place, but I think the quality of life certainly attracts people here, cost of living is a lot less. Now with businesses locating here they will be looking at different factors than the people staying in the city. But I think the one thing London has done, with the re-investment the city did in the city itself so the John Labatt centre the convention centre, the library, redoing the downtown the parks and recreation, you'll find very few communities that offer the type of amenities that London does at the service level it does, in the top 15 CMA's, of the top 15 CMA's, we are the 13th least expensive CMA from a housing stand point (LEDC 2).*

Overall, the second key informant from the London Economic Development Corporation clearly stated that London was performing well given the circumstances in London. The informant identified quality of life and cost of living in London as a key asset in the attraction of skilled individuals, while suggesting that attracting mid-career individuals opposed to recent graduates was more important to the city-region of London.

The two key informants from the London Economic Development Corporation did share similar beliefs concerning the performance of London in the attraction and

retention of the highly skilled. However, there were also some discrepancies within this institution. Both informants noted that quality of life and cost of living as significant assets that help attract mid-career individuals and noted the amenities that London does have to offer as marketable assets. However, most interesting is the discrepancy between the two informants as to the general success of London in terms of attracting and retaining the highly skilled. While one informant suggested London is doing well, the other stated London was doing ok, and not as well as it would like. The implications of these results will be further assessed in Chapter 6.

### ***5.3.2 Key Informant's Perceptions: London's Performance: Western University***

Two key informants from Western University were also asked how they felt London was performing in terms of attracting and retaining highly skilled individuals. One of the key informants felt that London was not performing as well as the city-region would hope, while the other elected not to discuss in detail how they felt London was performing. Choosing to give a detailed account of their experience attracting faculty to Western University.

The first key informant expressed that they felt London was not performing as well as they believe the city-region would have liked based on discussions with influential members of the community and past experiences.

*Well I can tell you for sure...having just listen to the rhetoric on this in recent years, I am sure the city feels it's not performing as well as they would like. I think there are things the city could do to increase the rates of retention. So for example: This deal with FEDDEV for 140 internships, what if the city matched that? Then they wouldn't be 6 months internships they would be one year, what if they just did that? The other interesting fact, is that co-op has been a good way to leverage that role to keep more students in London, if you look at co-op outcomes*

*for science and or for engineering. Most of those co- op placements are actually outside of London, they aren't even in London, they are all over the place, all over Canada, but not here. Why aren't London companies doing more? How could the city assist this? By greasing the wheels, I think the mayor gets it, he is just thinking about how this could work. I have been pushing international internships trying get more top end international students to come here, spend some time here and see how they like it and maybe stay. So they could be doing more, I think the will is there but there not very sure how to do it, and I think it's a question of organizations like the university, the chamber and the city sitting down and trying to figure this out (UWO 1).*

While the informant notes that London is not performing as well as they would have liked too, the key informant also notes some areas were the city could be doing a better job addressing this economic issue. When the informant was asked if there was a systematic strategy to address the attraction and retention of the highly skilled to the city-region of London from the perspective of Western University, the informant responded:

*So there is no systematic strategy, I tried I tried, about 2 or 3 years ago I started having lunch once a month with the directors or presidents of all the economic development organizations we started talking about how to have one system for funding, that would see money from council into the various organizations. Stiller Tech Alliance, LEDC (London Economic Development Corporation) we tried to promote a one-stop, one face one, one organizational model, and it just didn't fly, for various reasons. But In affect we got there anyway, because everything except LEDC is based here. And the relations between stiller, tech alliance and world discoveries are excellent and LEDC is still kind of out there on its own and I would have liked to bring those all together. I would have liked to bring them all together but there is a lot of resistance, that didn't come from the city, but from the organizations them self (UWO 1).*

Interestingly, the key informant stated that there were issues in the past regarding institutional collaboration in implementing a strategy to promote economic development. However, barriers prevented such initiatives from occurring. Further analysis of this theme and related themes of institutional collaboration will be further addressed in this chapter. When the informant was asked why they felt London is performing poorly, the informant stated:

*The fact is you know that we have a lot people here a lot of start-up companies, we have a whole corridor now that we have identified between the park here and all the way down Richmond street and all the way south it's kind of the education start-up corridor. There are some facts people don't know. First, I'll give you the facts, and tell you why we are not doing even better: we have 3 and 4 start-up companies a year that employ 2 to 5 to 10 people, it's not impressive, but as far as universities go were number one in the country for the last 3 or 4 years. We have done very well. Most companies aren't coming out of technology they are not coming out of our world discoveries office, they are coming out of start-ups that students start, so Ivey. I did a study...[that] showed that Ivey had produced over a 5 year period something like 330 start-up companies coming out of Ivey students, about 60 were in London, so 270 outside of London. Out of the 60, something like 30 were still in existence after the time period. But they employ a lot of people, something like 2000 people. That is really where the driver is, it's coming out of our students....I think it might have a real shot at harnessing some of this activity that's coming out of students themselves which could drive more activity, more entrepreneurship, more start-ups more hiring because, you're right, the jobs that are here in London here on the main, either aren't interesting and students or our students are not well suited for the industry, 3M, hospital, university, our main employers (UWO 1).*

Furthermore, the informant felt that start-up companies were key to keeping talent in the city-region and noted that London's economic development could be better if the region could utilize the students and the entrepreneurship of students upon graduation.

*But student employment could increase, or post-graduation student employment could increase if we kept a lot of students here through start-ups or if they started up their own companies. So we are losing a lot, but we are also starting a lot, how would we leverage that? Well the fact is if we put a little money into things and help these little companies out, we could grow them real fast, but we don't do that yet.*

*In London what are you doing to do? My view is that the big companies they will always absorb some of this labour, and some do come here because they can get people out of Western. I think the numbers in the hundreds, but if you really want to get it into the 1000's you need to go through start-ups or some kind of start-up strategy, where 100's of little companies will hire 5 and 10 people out of UWO like EK3 VOICE.com, and now it doesn't matter anymore about where you are it's about shipping costs and labour costs (UWO 1).*



Moreover, the key informant noted that the intake of students every year are largely coming from outside of the Western catchment area, and in particular the Greater Toronto Area (GTA). Consequently, making it difficult for the city-region of London to retain graduates post-graduation.

*So that's one thing, the other fact is that you need to understand is that something like 70 percent of students are from outside London area. About 40 percent come from the GTA, if they are coming in from outside they are probably going to go back to outside....You may not be able to keep them anyway, but the fact is 5 million people in GTA the prospects of getting a job are just far higher than you'd ever have here. It's fairly limited, and unless there's a way to prime that pump and build up that capacity you're not going to get there. It is tempting to say look at Silicon Valley, and how well they do, but that employment there is in so much in flux, they move in and out of jobs in a matter of months, they don't work 20 years at Google, they do like 8 months and Google and move to Intel. Half of the people I meet at these alumni things, they are in between or they are doing consulting and they are in and out in and out (UWO 1).*

Further, the key informant was asked how amenities and culture play a role in London's performance in attracting and retaining the highly skilled?

*Well I have evidence that it is important, but to students its important, but if I had a choice, I grew up in the GTA, I had a prospect of a job here in London, my wife said I don't want to come, its two hours away it's the sticks, and then we moved to Alberta, to Lethbridge, and it really was the sticks. From a relative perspective its not the centre of the universe, its nice when you have a family, but when you're young it's not easy, not as exciting. On the other hand things are relative, so when we attracted Lanxess to move their research facility from Sarnia to London for 50 top jobs, one of the reasons they cited, one of the reasons that they thought London was important, was the need to be close to a major university because it was technology driven and the other piece was because they didn't think they could attract top scientists to Sarnia its just too far out of the way. So people are attracting here they want younger people, but with families so they can profile London as a great place to live and work and they are in a beautiful spot, live in that neighborhood and walk to work. So that was a key factor for them, so it's important, it's all relative, if your coming from GTA then it's not as a good, a lot of colleagues commute (UWO 1).*

Overall, the first key informant from Western University noted that London was not performing as well as it could, but noted various reasons as to why. Interestingly, many of the comments from the first key informant of Western University related to London's performance contradict those of a key informant from the London Economic Development Corporation. Further discussion of the implications of such findings will be elaborated in Chapter 6.

The second key informant from Western University provided limited input regarding their perspective of how London is performing in the attraction and retention of the highly skilled and further discussed the attraction and retention of faculty to Western University, as this was an area of expertise.

*Right, so let me talk about the only part of this I know. Our ability to attract talent to Western, so now as a employer to attract and retain. How often do we have poaches of faculty, or how difficult it is for me? I hired 4 deans last year, there's 10 at Western. All were external, all were the first choice candidates of the committees, all of whom we successfully attracted to this institution. Did they come because of London? Probably not. Did I come because of London? No, but I came because of Western. So at the senior leadership level, which is a very competitive level, there's not that many institutions or people with the credentials to play in that arena, and of course when you're at one of the top schools the pool is even smaller. You're expecting more of the people you are bringing to a school like this. So I would say the high quality of the institution, the metrics that I have entering grades, retention rates, 250 million dollars in research run rate annually. All of these things speak to the strength and trajectory of this school. So at that level, 100% success (UWO 2).*

While this informant does not speak specifically to attracting and retaining the highly skilled to the city-region of London, the informant raises interesting insight into the role of London in attracting outstanding faculty to Western University. Furthermore, the informant provides an example of recruiting a faculty member, and notes the quality of the university as a key asset in recruitment.

*...it is not been my experience we have lost, could it have been that we lost? Of course, but I don't see it is a problem to recruit highly qualified personnel to London either. We had a junior colleague in classics who came from Duke, interviewed in four different places and she's an American her and her husband choice to come to Western because of the quality of the classics department. So it's anecdotal. So from my position as provost, attracting faculty sides and students, averaging entering grade 88% last year, it will be higher this year. Excellence begets excellence. People want to be around smart people and be around a place that has optimism and on an evidence base say if you come to Western, you'll be successful, leave and get a good job. When you're done, or a PhD, the preparation you receive here will stand in you in great stead to go and study elsewhere and get a job elsewhere. You cannot have a better rap sheet than that. And so that helps you attract people (UWO 2).*

When the informant was asked about attracting and retaining graduates of Western University to the city-region, the key informant stated:

*I talk to the Mayor on occasion and he's such a great cheerleader for the city. I don't know, is the short answer. What I Hear, from the campus and the City is that a great many students want to stay in London, undergrads.*

*...certainly the number of students who wanted to stay in London, and those who could stay, the demand to stay far outstripped the jobs available to stay. I don't know if that's the case in London, but anything anyone's ever said to me it's a similar sort of thing, more people want to stay than there are jobs for. I don't know if that speaks to London not doing a good job in trying to keep them here. Or just that the employment pool is not large enough to keep the students who otherwise might want to stay (UWO 2).*

Interestingly, the informant states that the demand coming from students to stay in London does in fact exist, which raises the question why they are not able to do so? In addition, the informant was asked why London is performing poorly and what role do amenities and culture have in this process?

*I think the jobs have to be great when you're not in Toronto or Ottawa or Montreal, so I think the amenities, how do you sell London? It's not on Lake Ontario, but the Thames River is kind of running, it's not a little stream you see in the summer. You know there are things about cities this size, that make it attractive. Cost of living, issues around safety, high quality education systems in the schools, not so much the stability of jobs, for certain industries it's not great here for sure. I think you need to sell the proximity; you can have these things and*

*live in London and your only two hours from Detroit and two hours from Toronto.*

*You can live in a city like this, and in short order, you can be out of here and enjoying either the culture or diversity that Toronto has, the airport to get you out. Also, the cultural diversity of London is really quite remarkable, and of Western, a lot of people think of Western as lily-white schools I mean, the demographics changed (UWO 2).*

The informant addressed the need for jobs to be superior in communities like London to attract and retain the highly skilled, especially when competing with city-regions such as Toronto and Ottawa within Ontario. Further, the informant also stated that the cost of living and marketing of London needs to focus on the strengths that the city-region does possess, which has been a common theme amongst the key informants interviewed.

Overall, both key informants made insightful comments pertaining to their perception of how London is performing in terms of attracting and retaining the highly skilled in London. The first key informant stated that London was not performing as well as it could, while the second key informant noted that the city-region of London was not the draw from incoming faculty. Rather, the institutions quality and reputation was a key driving in attracting individuals to Western University.

### ***5.3.3 Key Informant's Perceptions: London's Performance: Fanshawe College***

The key informant from Fanshawe College elected not to make a direct statement as to how London was fairing in terms of attracting and retaining the highly skilled as a whole. However, the informant did discuss the contribution of the highly skilled London was receiving from the graduates of Fanshawe College. When asked how the informant felt London was performing, the informant responded by stating:

*Well this comes down to our stats, and our stats show we do at Fanshawe we do regular monitoring reports on a variety of areas as an example how we are doing on our programming, how we are doing on student success, and how we are doing on the quality of our programs and our labor market.*

*We do know that I mentioned earlier of the students who come to Fanshawe, between 53% and 55% stay in London or our four traditional counties, so if you look at that versus the demographic, we are net importers of talent, and that net talent stays and they come to the college, graduate, and the majority of them continue to live here and contribute their skills to the needs of the local economy (Fanshawe 1).*

Moreover, the informant was asked if they think London is doing well in attracting and retaining the highly skilled, even if they are not coming from London's post-secondary education institution?

*Stepping outside of PSE in terms of looking at specific jobs skills which might be at a higher level, I don't have enough data to say, I would suggest that companies are attracting people here, seem to be able to do it, but I don't know how hard it is for them to do it (Fanshawe 1).*

The key informant is not sure how London is performing in terms of attracting and retaining the highly skilled as a whole. However, suggests that Fanshawe is a net importer of talent to the city-region of London.

Overall, the key informants from the three institutions, the London Economic Development Corporation, Western University and Fanshawe College did have varied perceptions on the performance of London in terms of attracting and retaining the highly skilled. Two of the five key informants openly stated that London was not performing as well as it could, two informants stated that they were not sure of the performance, and only one key informant felt that London was doing a good job. Moreover, the key informants noted the importance of good quality jobs in London to attract and retaining the highly skilled. Which was noted as vital when competing with other larger city-

regions in Ontario, such as Toronto and Ottawa. Further discussion pertaining to the implications of the results in this section will be presented and discussed in Chapter 6.

#### **5.4 Institutional Relations: An Effective Means of Economic Governance?**

All key informants interviewed from the London Economic Development Corporation, Western University and Fanshawe College all indicated that institutional relations between post-secondary education institutions, government and the private sector are important if not imperative to achieve goals within the city-region of London. The key informants were asked to share their thoughts and views on the role and importance of institutional relations between post-secondary education institutions, government and the private sector to achieve goals in London. The question was posed to gain insight into the key informants view of the importance of institutional relations to achieve goals in London. Which allows for further understanding of the institutions of stance pertaining to collaboration. This insight will further provide an invaluable understanding towards answering the overarching research question of this study. The key informants responded with minimal variation in their responses, indicating that the importance of institutional relations in the city-region is vital to achieve goals within the city-region of London.

##### ***5.4.1 Institutional Relations: An Effective Means of Economic Governance? London Economic Development Corporation***

When the first key informant from the London Economic Development Corporation was asked to share their thoughts regarding the importance of institutional collaboration in achieving goals in London, the informant responded by providing

examples of collaborative initiatives currently in place in London regarding students.

*Well, let me just say for instance, we are the LEDC, we have the president of Western and the president of Fanshawe on our board, and um as well I am just in the process of putting together a LEDC labour market information project, which has representation from Fanshawe and Western on its steering committee etc. We collaborate on this endeavor together, and they help co-fund western and Fanshawe help co-fund student to business, which is also unique. Which we have about 700 students from Western and Fanshawe come in and not only learn how to networking skills etc., there's also a special section for international students to find out about how to succeed in London. But also have a networking component of 200 employers to meet all of the students who are interested. So those are some of the collaborative ventures, we sit on program advisory committee, I have related to the career services staff at western probably three times in the last month and the same with Fanshawe, if you look at our website under coming events, you'll see that we are promoting western and Fanshawe's job fairs that are coming up, we are also co-hosting one at western with western and Fanshawe on careers in the aviation aerospace and defense industries, on Jan. 20th, because London has a cluster of employers in those areas so we are trying to make sure that students understand what the skill requirements what they are looking for etc. so (LEDC 1).*

When the informant was asked if collaboration was necessary, the informant stated:

*I'd say it is an essential ingredient, difficult to do. Western, 80 percent of Western students don't come from London, and so they are focused on returning whether it be nationally or internationally, to their site so (LEDC 1).*

While the informant provided some examples of collaborations that do exist, it did not appear that institutional collaboration was something that was currently utilized in reaching overarching goals within the city-region. However, the informant clearly noted that collaboration is important to achieve goals.

The second key informant within the London Economic Development Corporation stated that institutional collaboration was important in achieving goals in London, but again noted that there was a clear mismatch between demand and supply side of the labour market in London.

*I think it has two roles. One is, the most important one, is your able to develop talent coming out of the post-secondary education institutions, with talent that actually has applicability to the job availability. I mean one really good example is where we are a big failure in the post-secondary institution across the board in Canada, this year we are going to graduate almost 7700 teachers to availability of about 2200 new positions across the country. So we have all the time resources and the costs that go into putting those people through. Because, I mean the people at teachers college, are paying their designated university tuition, but we have all the costs there and yet we fully know that based on demographics and based on what's going to happen there aren't teaching positions for these people, and you go how is this making sense? (LEDC 2).*

The informant further discusses the programming disconnect between graduates of Western University's Computer Science program and local labour market needs.

*Whereas, for instance at Western as a specific example in the Computer Science department, we have another drop this year and have had a drop every year I have been here, in the overall number of people attending computer science at the school of engineering and that's where we need people and we aren't getting the right people coming out with the right skill sets. And that's probably one of the biggest disconnects we have in the student, everyone always raises oh we have to save students, and somehow along the line the media has really turned this up with what we have provided to them (LEDC 2).*

Further, the informant notes that the programming mismatch between graduates of Western University is far more detrimental than Fanshawe College.

*But they continually are making mistakes relative to what's taking place. The problem that we have are people graduating with skills that don't match what we need in the sector. Whereas we don't have that with the college, the college is basically working much more effectively in graduating students with applicability for the job market here (LEDC 2).*

The informant reiterates that there is a misconception in the media regarding the flight of graduates out of the city-region of London, further stating that various efforts have been made with industry to work solely with the university on collaborative research efforts.

*Again there's been a lot of misconceptions, and there's been a lot of absolute no*



*research behind it reported by the media here. We know what the numbers are, they just don't have it. The second part is as well for us, we know that the knowledge side is going to be important, having the right job skills is going to be important, but third is industry can collaborate with the University on research and development side and growth of ideas. And we have really been active to try to allow, get participation of the university and the college. When I first came to London, the university and college were really an afterthought in what we were participating in. Any time we are working in sectors, or anything we are doing, we integrate the university and the college in what we're doing on the attraction side, on the expansion side, the number of companies we have hooked up together on the research and development side is really exciting. And as well as working with companies getting them to understand what talents they need, so we can go back to the schools and let them know here's what you should be focused on to help us with the local area (LEDC 2).*

When the informant was then asked of the importance of institutional collaboration to achieve goals in London, the key informant responded, "I think if you're going to utilize the resource, it can either be something you ignore and you don't take advantage of, but if you're going to take advantage of it as a resource then it's something you have to fully integrate with" (LEDC 2).

The responses from the two key informants within the London Economic Development Corporation highlighted some important areas for discussion, which will be further elaborated in Chapter 6. However, both informants did note the importance of institutional collaboration within the city-region between the post-secondary education institutions, government and the private sector. However, it appears there is a disconnect between the institutions which will be further explored in section 5.7 of this chapter.

#### ***5.4.2 Institutional Relations: An Effective Means of Economic Governance? Western University***

Both key informants from Western University acknowledged that institutional collaboration amongst the private sector; post-secondary education institutions and government were essential to achieve goals in London. The first key informant noted

similar concerns with skills mismatches between the graduates produced in the University and what was needed in the local labour market.

*We don't do much of that here, and we are just starting to think about how we do that, but I think that it is extremely important, when everyone shares an interest, in this case economic prosperity, working together can really lead to some phenomenal outcomes if you are aligned, if you're not aligned, if the University is producing jobs for people in the steel making sector, how is that going to help voices.com or digital extremes? (UWO 1)*

Further, the key informant noted that if collaboration did exist between the University and private sector in areas of labour market needs, graduates could create great opportunities for the city-region of London.

*If they have very effective entrepreneurship programs through schools like Ivey, if universities have programs that develop entrepreneurship in high tech industry and that's aligned with the needs of the private sector and aligned with governments goals of creating jobs and prosperity for Canadians, if you can align the product being the student for the private sector with the training process through the universities and government funding you can do some great stuff (UWO 1).*

The informant notes that collaboration between post-secondary education institutions, the private sector and other local institutions is very important. How it would actually happen appears to be problematic, but the informant provides examples of American schools that appear to be able to collaborate with the aim of employing graduates.

*I think Stanford probably developed good ways of doing that, then again there graduates might not stay in silicon valley, they may go somewhere else, but well in tuned with the needs of the market, same with MIT with the needs of the market, and they exploit that to the benefit of companies that hire their grads, that's a critical piece, but how you do it is a great question (UWO 1).*

Moreover, the second key informant from Western University stated that institutional collaboration is imperative, and provides several examples of partnerships

between the university and college in London.

*So, again I mean the imperative is that it, it is the imperative to meet the goals. Let me talk about for a minute partnerships between colleges and so let's say locally Fanshawe and Western. Kind of partnerships we have that would facilitate goals of for example pathways, for the preparation of highly qualified personnel, as you define it as college to both undergraduate and graduate degrees, in what we can we help facilitate pathways for those who start out in college to be able to attain university credentials, so that's one example of partnerships with Fanshawe. There are other Fanshawe that relate to the programs that we do in common, so we have a collaborative nursing program. It attracts, a different a range of people who want to be nurses, because it is a joint program. We have a FIMS, MIT program, we have a new music program where the applied aspects that Fanshawe can bring to the table are much more enhanced than what we can offer at Western. And the collaboration means that students get the best of both worlds, so they are degree opportunities for students, so that would be on the undergraduate side, so in terms of keeping with Fanshawe for a second, but adding the city of London, we would each be aware the mayor has a vision for downtown London to be revitalized, and of course we are working very hard on the downtown initiative that includes City Hall, but that's a Western - City initiative (UWO 2).*

The informant further elaborated on other partnerships that have been in place to achieve goals but finishes the discussion by stating:

*So I mean those would be some examples in all sectors, that would illustrate, that really leveraging expertise and resources of each of the sectors is the only way of which we are going to be able to build capacity in a centre like London, that is not downtown Toronto (UWO 2).*

Both key informants clearly highlighted the importance of institutional collaboration in achieving goals in London, while there appears to be some barriers in terms of applying collaboration to attract and retain the highly skilled in the city-region.

#### **5.4.3 Institutional Relations: An Effective Means of Economic Governance? Fanshawe College**

The key informant from Fanshawe College expressed that institutional collaboration is essential to meet common goals in London and primarily discussed the

partnership between both post-secondary education institutions in London. Further, the informant briefly explains the difference between the two post-secondary education institutions agenda and further proposes that if the college and university do not start collaborating further then the provincial government may take the lead creating progressive educational policy.

*I think one of the challenges for Ontario, is exactly that at least between post-secondary education institutions between the colleges and the universities, and that reflects the decision then minister of education Bill Davis, back in 65' about what the role of the colleges and the role of the universities was. And the clearly understanding of the colleges was for labour market training, and the role of the universities was this broad based education and very elitist in the sense that only a few number of people in society would ever be able to go to a university. Thinking has since progressed but the binary divide that existed at the time of the creation of colleges still exists in Ontario, now there has been some good work to try to build some bridges through the CUCC the college's universities coordinating committee which will become the new Ontario council on articulation and transfer. But compared to other jurisdictions, Alberta and BC where they have what are called designed hybrid systems where you can do vocational training or do university training in a college, we are a little behind. Now government is trying to really work on this through the pathways initiative between colleges and universities, but there is a lot of inertia there based on the history. Some universities are a little bit more progressive universities than others. Guelph is an example of a relatively progressive university, but there is a lot of work to do, to provide those opportunities otherwise we are duplicating our resources, which becomes critical when our resources are restrained and if Europe melts down things are going to get really interesting (Fanshawe 1).*

The informant notes that the university and college have done very good work creating partnerships individually, but suggests that limited collaboration exists between all three institutions.

*Now in terms of relationships with say the broader community, I think both the colleges and universities have done very well at that. The colleges have built amazing relationships with industry that have provided students coming out of colleges with experiential learning opportunities it's almost part of our mantra. And on the university I think you see the success based on the relationships with Western's Ivey and other areas where there is a support from particular segments. Where we don't necessarily see the linkage is a trifecta between industry, colleges and universities together. There is the odd thing, but it is not as*

*pronounced as other jurisdictions in Canada and other jurisdictions in the states. So that is some work the province will have to do, if we don't solve it as the colleges and the universities, one can forecast that government will look at other policy levers to do that (Fanshawe 1).*

The informant further suggests that institutional collaboration between universities and colleges is possible and should be done, but questions how it is to be done?

*For our size of communities, lets use London as a perfect example, we have two publicly funded post-secondary education institutions. So how do we meet the needs of the community in a complimentary way, not in a competitive way? And I think there is a good complementarity that exists, is it fully aligned yet? No. Do we know the pathways are yet? We are working on them, but there is a lot of work to go (Fanshawe 1).*

The key informant from Fanshawe College did state the importance of institutional collaboration in London, and suggested that there is good institutional collaboration between the post-secondary education institutions and the private sector. However, all institutions working together does not occur as frequently, and is problematic in part due to the history and institutional context of education in Ontario.

### **5.5 Institutional Relationships: Attracting and Retaining the Highly Skilled in London: Who is Responsible?**

The key informants interviewed from the London Economic Development Corporation, Western University and Fanshawe College all indicated that attracting and retaining the highly skilled to a city-region and institutional relationships between post-secondary education institutions, government and the private sector is vital to local economic development to achieve goals within the city-region of London. Thus, it is important to investigate which if any of the institutions is responsible for attracting and retaining the highly skilled to the city-region of London. Based upon the policy document

analysis in Chapter 4, it is clear that the London Economic Development Corporation and Fanshawe College noted attracting and retaining the highly skilled is a strategic priority. However, Western University did not make note these indicators as a strategic objective. In contrast, Western University stated it was an institutional strategic objective to attract and retain students and faculty to the institution. The key informants were asked if they believe their respective institution has any role in attracting and retaining graduates or highly skilled individuals in London? And whether another institution in the city-region of London ever approached their respective institution to address the flight of graduates out of London? These questions raised various responses among the key informants interviewed from the three institutions studied. The questions aim is to understand which institution if any feels they are responsible for working towards achieving an increased concentration of highly skilled in the city-region of London.

#### ***5.5.1 Institutional Relationships: Attracting and Retaining the Highly Skilled in London: Who is Responsible? London Economic Development Corporation***

When asked what role the London Economic Development Corporation plays in attracting and retaining the highly skilled to the city-region of London, the first key informant stated:

*It is a role; it is one of the pillars. Getting the talent from both institutions to stay and be successful is great as is attracting new comers, with preexisting skills and getting them to be applied, as is other workers within the community who may have graduated from other institutions and may be in London.*

*We want talent, but Western and Fanshawe are only two pools, in other words we would want to attract some Waterloo computer science students, if there's a need etc. We know we are going to have labor market shortages, we know we are already competing with other communities (LEDC 1).*

The informant was then asked if it matters where the talent comes from?

*Obviously having Western and Fanshawe on the door step, that makes it you know, people are more familiar with the city, less settlement issues, it makes it a preferred but it is not the only. And Western and Fanshawe don't have all the range of the programs that are needed by local employers (LEDC 1).*

Interestingly, the informant stated that there is no preference where the talent comes from, so long that the local labour markets needs are met. Additionally, the informant was asked if the London Economic Development Corporation has developed any policies or programs with the aim to attract and retain graduates or the highly skilled to the city-region of London? The informant responded:

*Well, not in terms of the retention. We do things like supporting a career speaker series going into high school students in making better choices. We are trying to develop the most acute labour market information system, which is good data for the educational institutions to help market to the student population the opportunities in this region. But that's sort of a structural under pinning to help that happen (LEDC 1).*

Further, the informant was asked if either of the post-secondary education institutions or city institutions have ever made attempts to collaborate with one another to address the flight of graduates out of London?

*Yea Yea, like ...not specifically, their thinking about how to better service, it's not a question of keeping them, it's a question of how can they provide better experiences, support and employment, so they're not coming to just the attraction side. Or let me give you another, you're a graduate student. Western has increased its graduate student population; many of the graduate students are not going to get work in academia. So Western is really keen in saying how can we...not all graduate students have recognized that, so therefore, Western is looking for ways to say how can we help get our graduate students get meaningful employment, give them the qualifications and support (LEDC 1).*

The informant was then asked if the post-secondary education institutions gave importance to where the students were finding employment and stated, "They would not

be rating it at as a higher success because it was London, then if it was in Milton or Toronto or Mississauga, you know what I mean”? (LEDC 1). Further, the informant was asked to clarify a previous statement that Fanshawe and Western had both initiated collaboration with the London Economic Development Corporation.

*Yes, but not with that expressed intention of skills retention. They are interested in helping students succeed, in the same way the alumni associations are looking at, Fanshawe already has a mentorship program for recent grads, for more established alumni, Western is looking at the same thing, to establish greater supports, well I can say that because I'm in another role. But if you look the way Western is operating through the alumni association, back pack to brief case, which is to help people make that transition. There now looking at other programs through the career centre and also as the alumni association and career development services to look at part-time and continuing ED but looking at additional supports, career related supports (LEDC 1).*

The second of the two key informants interviewed at the London Economic Development Corporation stated that the institution does have a role in attracting and retaining the highly skilled to the city-region as an institution that connects partners and other institutions. In response to whether the London Economic Development Corporation had a role in attracting and retaining highly skilled individuals, the informant stated, “Oh definitely, I think I have giving you a good overview of where I think they could do something differently would work” (LEDC 2). The informant was asked what the institutions role was in attracting and retaining the highly skilled in London, and the key informant responded:

*Well it's connecting the partners, but it is also from our side to help some of the policy, and we do in a lot of ways, we sit down the research and development team, with the schools this is what we are hearing on the street this is the type of person they are going to need. Another really good example of that is Western's co-op program I mean people don't realize but Western has a very strong co-op program, but it's not like Waterloo's, where people do a term on and term off, its actually a full year term. We could probably place double the amount of co-op students out of westerns engineering and out of the other some of the other areas and social sciences that people do the co-op terms, but we haven't been able to*



*increase the breadth of what's available through the university to do that (LEDC 2).*

When the informant was asked if the London Economic Development Institution had any programs or policies with the aim to attract and retain graduates or the highly skilled to the city-region of London, the key informant stated:

*Well I mean, Western has opened up an extremely large student success centre that is a much more aggressive career centre, and when I went to Western none of those services were available and now you've got almost unlimited resources any student that needs assistance with that. There's pretty much something there to help you tear through that. I'd say that's probably, Fanshawe has the same thing called the student success centre; both of them offer particular programs around that. They are as applicable and effective as they get out and work with the local environment, I am not up there to see day to day but I know what their goal is, so that's good so I am assuming they are able to reach that (LEDC 2).*

Thus, it is clear that the London Economic Development Corporation provides little support in terms of policies or programs with the aim to attract and retain the highly skilled to the city-region. In addition, the informant was asked if any other institution has approached the London Economic Development Corporation to address the flight of graduates out of London? The informant stated that they did not feel there was a flight of graduates out of London, and discussed other elements of attraction that the informant deemed more important. Further, it was evident that the informant felt that Fanshawe College was supporting a large portion of the local labour market with students, and Western University was in a neutral position. Reiterating that Western University was producing the same amount of students into the local labour market as were attending the university from the London catchment area.

*Well I mean we do, again as I say I don't think there is a flight of graduates out of London, I think the issue for us really is that can we find, as I say I don't think there is a flight of graduates. On the college side were positive on the graduates, and at Western we're even so really what we're looking at how do we potentially*



informant also made it clear that there was not a flight of graduates out of London and that attracting immigrants was a more important issue for the city-region of London.

Both key informants from the London Economic Development Corporation provided useful and interesting insight pertaining to their institutions role and responsibilities concerning the attraction and retention of highly skilled individuals in the city-region of London. Further discussion and analysis of the implications of results will be presented in Chapter 6.

### ***5.5.2 Institutional Relationships: Attracting and Retaining the Highly Skilled in London: Who is Responsible? Western University***

The first key informant from Western University was asked if they felt their institution had any role in attracting and retaining graduates in the city-region of London?

The informant responded:

*Well we do, the answer is yes and no – nominally and technically the answer is no. Unless some how we can better serve our industrial clients and thereby spend more time with us and do more things with us and more money with us. But its very idiosyncratic, I think the VP research is in the best position to lead this because of the industry connections already in place, but whether that happens or not in this way is up to the leadership of the university. Depends on the boards directions and the directions the president sets – but it makes sense to me. From a personal view, it makes every bit of sense to me (UWO 1).*

Further, the informant was asked if Western University has developed any policies or programs with the aim to attract and retaining the highly skilled in London?

*Not within the VP Research portfolio other then what we do on economic development front and our attempt to promote start-ups and that would indirectly would lead to growth and jobs but not in any direct way. The only exception I give you, the park, which falls under the VP research portfolio did secure the funding for these 140 internships...That would be more direct than anything I've ever seen (UWO 1).*

The informant was then asked if any other institutions within the city-region of London have ever approached Western University in an attempt to collaborate to address the flight of graduates out of London?

*Yea we all do it's a topic of discussion, but how do we do it. The city has been great in the attraction of faculty, like Adrian Owen from Cambridge, this is not an easy thing, but what attracts people like that they can buy 5 houses for what their house is worth in England. But it has to be good for families, amenities, good schools hiking and skiing and get out easily on a plane to visit relatives, so we do collaborate there. On the student side, I don't know, I am not sure we do that much, its always discussed but the city and the university have a liaison committee they meet every quarter, if you talk to the provost she may be able to talk to you about this more. All of these issues get on the table in a fairly high level way, but what's on the table more than that? Is the kind of issues the students create for the city? How do you square that? (UWO 1)*

The informant goes on to further elaborate that it does not seem like the public is too fond of the student's presence in London in the first place.

*If the city doesn't really appreciate the students to begin with, which the public doesn't, so we spend millions on residences to get the students out of the neighborhoods, maybe we shouldn't spend millions on residences, if you think about it what does that do for the local economy? (UWO 1).*

The second key informant from Western University stated that the institution does have a role in attracting and retaining the highly skilled to the city-region of London.

*Sure I do, of course, so on the research element to keep the best and brightest researchers and to help spin off companies so they can be very successful and have a home base in London. The other side of it is retaining the top talent that we can here that comes through Westerns doors. Both through promotion through graduate school, I want the best undergraduates to stay and do graduate work and keep those that we can employed at western or beyond in the city (UWO 2).*

Further, the informant was asked if Western University has developed any policies or programs with the aim to attract and retain the highly skilled in London?

*Not that I know of out there, the only one we would have internally in terms of*

*attracting is that we have some fairly sophisticated help through the faculty relations and training about part of our pitch when we are out doing interviews to attract the best candidates for academic roles. We have got, Jennifer Holburn, who does a lot of that faculty recruitment stuff, programs and materials and programs of integration. For example, spouses, so not just attracting but retaining, but there are programs that relate to faculty retention and welcoming that run through the faculty relations arm (UWO 2).*

Since there were no programs or policies at Western University beyond attracting and retaining faculty, the informant was asked if any other institution within the city-region of London had ever contacted Western University in an effort to collaborate to address the flight of graduates out of London? The informant made it clear that there was no attempts that they were aware of, “Not to my knowledge, and certainly not since I have been here” (UWO 2).

### ***5.5.3 Institutional Relationships: Attracting and Retaining the Highly Skilled in London: Who is Responsible? Fanshawe College***

The key informant from Fanshawe College clearly stated that the institution does have a role in attracting and retaining the highly skilled to the city-region of London, and stated it was a concept that the institution was founded on.

*Absolutely, that’s our primary goal. Founded on, our board of governors has a policy on labour market, and that labour market policy, is where we have our monitoring report that we do to our board to show how we are doing each year in that. It’s one of the things the boards pays particular attention too, are we meeting the needs of the local market, then you take out as concentric ring, are we meeting the needs outside that labour market? For say southwestern Ontario, take it out another ring, Ontario, Canada, North America, the world (Fanshawe 1).*

Furthermore, the key informant was asked if Fanshawe College has created any policies or programs regarding this matter, and responded:

*Well I would say, we have developed policies. We have a labour market policy that our board has for the college, that as an ends policy, it says that the college shall not fail to do this. At a college policy level, we have policies on our*

*programming which very specifically tell us what we need to do policies on our advisory committees, policies on our applied research so there's a larger number of policies that exist on this very topic making sure we deliver programming that is current, relevant and the labour market broader board policy to make sure that those are driving to meet the needs of London and country and the four counties (Fanshawe 1).*

The informant was asked if any institutions in London have ever contacted Fanshawe College in an attempt to collaborate to address the flight of graduates out of London and responded by suggesting that from the College's perspective there was not a migration of highly skilled out of London.

*Well I think that last year's Mayors economic forum one of the pillars was on education, I think that was partially it. The pillar on health was looking at how we continue to integrate college with the university, to look at making sure provide opportunities to stay here to progress in their education rather than moving away to get it. The underlying premise of that particular question that it implies there is an out migration of talent, again I will speak to the college side, we are an in-migration of talent...The college was clearly set up when it was established in '67 to meet local labour market needs. That's why we have program advisory committees, and college advisory committees that say these are our needs how are you meeting them within the broad framework (Fanshawe 1).*

The informant made it clear that the College is founded on meeting labour market needs and subsequently attracting and retaining the highly skilled to the city-region of London. Thus, the institution does feel it has a responsibility to create an in-migration of highly skilled to the city-region of London.

However, it is clear that very little dialogue if any is present between Fanshawe College and other institutions in London to address the attraction and retention of the highly skilled.

Overall, there was limited consensus amongst the key informants regarding which institution does have responsibility for this issue and who is to address this issue. The

informants from the London Economic Development Corporation stated that the institution does have role in attracting and retaining the highly skilled to London, but is predominately done through the connecting of partners within the community. Further, the London Economic Development Corporation does not have any programs or policies to attract and retain graduates or the highly skilled to the city-region, however noted Western and Fanshawe's career centres as the closest to a program that exists. The two informants from the London Economic Development Corporation indicated that there were no attempts for collaboration addressing the flight of graduates out of London by other local institutions. The first key informant from Western University stated that the institution does not have a direct role regarding the attraction and retention of the highly skilled in London, while the second key informant stated that the institution does play a role in terms of attracting and retaining faculty solely to the institution. In addition, there are no programs or policies at Western University with the aim of attracting or retaining graduates or the highly skilled to the city-region of London, with the exception of a faculty program to assist in the transition of faculty recruitments. The two the informants from Western University indicated that there were no attempts by other institutions to collaborate to address the flight of graduates out of London. Finally, the key informant from Fanshawe College made it clear that the institution plays a direct role in the attraction and retention of the highly skilled to the city-region of London and was a founding policy of the institution. The informant from Fanshawe College stated that policies do exist with the aim to attract and retain the highly skilled in the city-region through the institutions policy of 'meeting labour markets needs'. The informant noted that there was no attempt of collaboration with Fanshawe College to address the flight of

graduates out of London by any other institutions within the city-region.

## **5.6 Institutional Relations: Examples, Factors of Success and Barriers**

The informants from the London Economic Development Corporation, Western University and Fanshawe College were asked to discuss past, current and future collaborative initiatives, notable barriers to institutional collaboration, as well as factors for and barriers to successful collaboration. It is important to assess whether collaborations between institutions have, are and will be taking place. Such information will progress our understanding of what factors contribute to successful collaboration as well as what factors act as a barriers. Through the discussions with the informants, there have been and currently are collaborations taking place. However, the informants generally feel more could be done. All informants noted similar barriers to institutional collaboration, as well as similar factors for success.

### ***5.6.1 Institutional Relations: Examples, Factors of Success and Barriers London Economic Development Corporation***

The first key informant of the London Economic Development Corporation was asked to discuss collaborative experiences that they have encountered with other institutions in London such as the post-secondary education institutions, the private sector and government. The informant discussed present collaborations with the Robarts and Stiller and Lawson centres, as well as the London Economic Development Corporations role in recruiting staff for such centres and developing partnerships between Fanshawe College and Western University.

*...If you look at the Robarts and Stiller and Lawson Centres, we are actively working with them to recruit staff. We do things like, for instance, I help with the*



*spouse physicians and researchers coming to help find employment opportunities for them, because we recognized that is a key ingredient. People are making choices not just for themselves, but their families. If you look at a key example of a collaborative is the centre that we are developing together with Fanshawe and western out of the industrial lands.*

*So for instance, there is a specific, you'll have noticed the aids HIV vaccine announcement yesterday, how did that come to London? That was LEDC support to the University and others, which were recognized in remarks yesterday. So while it's housed at the university there was a lot of collaborative work for that to happen, so that happens from within we're supporting Fanshawe in terms some of its technology development, we're helping for instance they've got a program in internationally trained, helping people develop international markets, and so we've helped that program. We have introduced graduates of that program to local employers. So there's lots of different kinds of ways both at the sort of strategic and tactical level that we're engaged (LEDC 1).*

When the informant was asked if these opportunities were initiated by the London Economic Development Corporation, the informant responded:

*I think it's symbiotic, in other words it depends on the issue or the timing or the connection, sometimes we'll go in and be asked to be judges, and case conferences and etc. right. So sometimes it'll be initiated by the institution, and sometimes we'll be initiating it based upon what we're seeing as a need (LEDC 1).*

Thus, the London Economic Development Corporation does engage in various collaborative efforts, specifically between the post-secondary education institutions. Furthermore, the respondent was asked if there were any identifiable barriers to collaboration with other institutions in London. Regarding post-secondary education institutions, the respondent noted elitism and a lack of community involvement from professors.

*...Obviously people have their own interests, often the few will say at Western is publish or perish. Or so perhaps the area that has languished, I shouldn't say that because teaching hasn't languished, but the god of research, sometimes means that staff are less involved in the community than they could be, and so and also when you're engaging staff, are you engaging a university professor or college professor? When you phone them are you getting them as representing the*

*institution or are you getting their consulting company? (LEDC 1)*

In addition, the key informant notes that there is a lack of collaborative goals within the post-secondary education institutions and expressed the need for post-secondary education to engage in more experiential learning, which will inherently require further collaborative efforts.

*So the challenge sometimes is, perhaps for instance the university could more clearly establish, some collaborative goals, Fanshawe has them but yet again they could be better executed, and that's partly time, partly energy. What is interesting is that funding in the United States for colleges and universities is started to be tied more to labour market outcomes. It is already in the college system more here, but it is also happening at the university system in the United States. I am sure that will come here. You will see that Western has added three people to look at experiential learning to build those into programs, that will require their coming late to the field, because the high schools are already working with local employers, Fanshawe college is, the private career college is, the employment agencies, now Western is now seeing the value of having direct employer connections. Even though they have a very good quality product, they will find it a bit more challenging given the full market place (LEDC 1).*

Moreover, the informant notes that a lack of perceived value by potential partners is also a barrier in collaborative efforts. "...People are always concerned with propriety information or knowledge or whatever. And so I don't think it would be lack of trust, I think it would be lack of perceived value or focus" (LEDC 1). However, the informant noted various reasons for successful outcomes in collaboration. Specifically, the key informant noted strong leadership, parties identifying a mutual benefit and giving recognition to institutions such as the local post-secondary education institutions.

*One is the, obviously the leadership, seeing mutual benefit, the second is designing, helping people see that not always will everybody win, or in other words, you can't always sort of mark a role out for Western or Fanshawe in an enterprise. But knowing that their turn will come, so part of it is giving good recognition (LEDC 1).*

The second key informant from the London Economic Development Corporation

provided four notable collaborations with institutions within the city-region of London including student to business, the attraction of the Fraunhofer Institute for composite resources, the International Centre for Water Excellence and collaborations pertaining to the Advanced Manufacturing Park. The informant made it clear there have been many successful collaborative efforts with institutions in London.

*A great example we have coming up is student to business which takes place next Thursday where we bring in the graduating students who want to attend from Western and Fanshawe. We get about 600 students in, I'd love to have 2000 come it make a lot more applicability, but we are working with the college and the university, bring the students in and then we bring representatives in from 250 different organizations, to talk about what opportunities are there... I mean we have done so many projects with Western. We have the new Fraunhofer Institute for Composite Resources and research that we're doing, we have the new International Water Centre of Excellence that we're putting in place, we have the whole Advanced Manufacturing Park that we doing with Western and Fanshawe. We've got the integrated robotics program that we help support, and bring a number of manufacturers to help support Fanshawe with. We've got the whole element we're doing with digital media and DIGG conference in the whole DIGG media development around the digital and interactive media, so I mean we probably have on an active basis 3 to 4 integrations under way at any one time with the college and university (LEDC 2).*

When the key informant was asked what prompts such collaborations, the informant stated it is generally the London Economic Development Corporation, however recently there has been more collaborative ideas brought forth to the London Economic Development Corporation.

*It has generally been LEDC getting them started, but now that we got that up and going its been more of a two way street. When I first came here there wasn't enough going on, we have really built up a lot those. Student to businesses we did since I got her, DIGG our wind water and sun show, everything we did to bring everyone together we have implemented over the last four years (LEDC 2).*

The informant was then asked to elaborate on activities that may be brought forward to the London Economic Development Corporation by Fanshawe and Western,

and stated:

*Well Fanshawe, with the success we have had with our various sector things, is now doing something where we are having breakfast at Fanshawe and we are bringing in for the first time bringing industry in with us and with the college, to start again getting the conversations going and looking at ways we can help. But half the battle is having business on the private sector side; the businesses understand what the actual advantages of collaborating with the college. A lot of the times they don't have any idea, they think they are going to come in and help me build a product, well, it may not be, it may be engineering, it may be processes, it may not be anything at all, but if you don't know what it is, a lot of the times there are assumptions made that aren't really valid.*

*...This is something the college started actually in the last little bit, they have been working with us to get our contact list, who we think we should invite so we just did one for the digital media sector in December, we have one coming up for the advanced manufacturing sector in April, one for food processing in May, so again its ways to get us all working together (LEDC 2).*

Further, when the key informant was asked to further discuss the activities that the institution does with Western University, the informant stated that the activities are much more specific and focused opposed to a holistic Western University collaboration.

*Well we do different things with Western where we do more say through specific areas with Western, we do it more specifically with topics and targets of things like life sciences, medical devices, IT, much more specifically focused things, imaging research, a number of different things, there tends to be coming out more, instead of being a general say Western thing, it's more coming out of a specific element of the school. So for instance, I sit on the advisory board to the engineering school, is a really good example of something like that (LEDC 2).*

The informant was asked if there were any notable barriers in such partnerships? The informant stated that there were no real barriers but noted that getting all institutions to understand the value in the collaborative efforts was challenging and specifically noted that the university and the college approach the collaborations from different perspectives based upon their institutional interests.

*No, I think the real thing is just getting everybody working together and trying to*

*understand where there was value in doing this. The university always wanted to increase its total amount of research dollars it's developing, that's really for them one of their key parameters of success. That's always been their key focus when we're working on opportunities, like how do we get more research dollars? Or how can the university do more projects that ultimately generate more research dollars for them. The college has a little different outlook at what they're doing, they haven't had a traditional role in research and development their building that, looking at ways they can do it. I think what the college is seeing more along the lines is are they graduating the applicable people relative to what the industry wants. So the two of them have a little different outlook on what success looks like (LEDC 2).*

Moreover, the informant was asked if there were any notable factors for success in the collaborations that have taken place, and asked if getting the collaborators to see the value in a given partnership was a key factor for success?

*Well in this one, it was actually, the university knew they wanted to do this [referring to the attraction of the Fraunhofer Institute for Composite Research], but the university didn't have the funding on its own to do it. So through our board, our group and our actual employees a few key employees myself and a couple of the others we worked directly with the university, particularly through our city council to basically allow us to get the funding council to do this, and then work through the business model, the business plans, how this was going to work to show when this will...the city basically made a 10 million dollar investment through LEDC to basically allow this to take place, it took a lot of time and effort and a lot of sales, but we worked really hard on it (LEDC 2).*

While the informant did not specifically note many factors of success in collaborative ventures, it is clear that getting the institutions involved to realize and achieve what they feel are parameters of success is a barrier and a means of success for collaboration. The two informants from the London Economic Development Corporation made it clear that there are various successful collaborations with institutions within London that have, are and will be taking place within the city-region. However, the first key informant noted that more could be done. Both informants noted that it is imperative for all institutions to see the value in any collaborative efforts, while this does not always happen it is an essential ingredient for success.

### **5.6.2 Institutional Collaboration: Examples, Factors of Success and Barriers Western University**

The first key informant from Western University stated that various successful collaborative ventures have taken place such as: the Research Park, private sector contracts, and the Fraunhofer Institute for Composite Research.

*Sure so our park here across the road is home to every economic development organization in London with the exception of LEDC, so Tech Alliance is here, that's the organization of high tech companies in London, they have about 200 members. I'm the on the board I should know this, the Stiller Centre, which is the life science incubator is in the park, world discoveries which is the cities commercialization operation is in the park, the park itself, right? LEDC is downtown but most of this is actually located right here. So we built that, we did that that purposely to try to bring these clusters together, so the park plays a critical role.*

*In terms of private sector: the university currently has I think about \$30 million in contract work with companies every year, probably fluctuates between 20 and 30 and that could be for clinical trials, testing of materials or processes, or a number of things but these types of collaboration with companies is important to the universities, and obviously helps fund student positions, grad student positions, part of projects post-docs and funds the research of our faculty, all very directed towards industry needs, so we do work for example with Trudel were developing a swallow assist device for people with Parkinson's and other diseases through Ruth Martin, we work with Trojan, not so much with 3M, unfortunately.*

*We work with little companies, Science tech, Sci Sense, another one in the park use nano fabrication facilities, Surface Science Western, and of course our wind tunnel does a lot of work with companies, that need to test wind patterns, from building tall structures and bridges and its actually quite extensive, and Western is a leader nationally in these types programs (UWO 1).*

While the informant does provide many good examples of collaborative efforts with the private sector and economic development institutions, the informant notes the lack of presence of the London Economic Development Corporation. Further, the informant stated that Western University has an agreement with the London Economic Development institution to assist in any company attraction efforts.

*The university has an agreement with the LEDC also, and has had for the last three years, and the UWO will collaborate with LEDC with the respect to LEDC's attraction efforts for new companies, so if the new companies in town, and wants to look around for a site, the university has agreed, we always would have anyways, to work with them to attract this company through what ever means we can (UWO 1).*

Moreover, the informant noted a recent example of collaboration with the City of London to bring the Fraunhofer Institute of Composite Research to London.

*With the city, the best example we have where the deal the city granted us 10 million to establish a partnership with the Fraunhofer society of Germany, on land the city owned, but donated to the university. So the city gave the 25 acres to UWO on Vet memorial, then we went after them for 10 million to buy the equipment to bring Fraunhofer in, they said ok...(UWO 1).*

When the key informant was asked what typically prompts these collaborative ventures, the informant stated:

*A good VP, I think to some extent researchers themselves, they make contact with industry or industry contacts them. And that drives that. To a far less extent and surprisingly companies themselves, its quite shocking to which degree that companies know that they could work with universities is changing more are recognizing. Most of it is the University going out to get them...(UWO 1).*

Further, the informant was asked how the University identifies the areas in which Western will go out and pursue collaborative partnerships? The informant stated, "Well as long as we look at everything as an opportunity you go after, we try to match companies with our capabilities" (UWO 1). Regarding notable barriers for collaborations the key informant noted that there are administrative barriers and various legal barriers in the process.

*Oh yea, I mean there's lots of stuff, I mean as university administrators, we can't guarantee the researchers will do the work, even if the researchers say they will do it, it is still work on their timetable and their abilities, and that doesn't always happen. Sometime issues related to IP which can be problematic, sometimes you will have problems with contracts in terms with how deals get struck. And lawyers*

*get involved, and who gets what and how to share the benefits of any exploitation? Companies ask for crazy things, one company here in London asked if the product they were licensing didn't work out, we would have to re-reimburse them for all of the research money that they themselves had put into the product, we said no we aren't doing that...(UWO 1).*

Moreover, the informant noted that the university is not difficult to work with, especially compared to private companies and the government.

*But whenever you hear about universities is difficult to work with, compared to companies we are a piece of cake. A lot of it is just bluster. Governments worse than universities in terms of bureaucracy, with the city it's always hard to convince the city of the importance of doing things together, doing things that would be worth the investment they are willing to make, they are responsible to their tax payers and investing in R and D or investing things that will pay off in jobs down the road aren't as popular as fixing pot holes or another rec centre or whatever. So yea there is a lot of resistance, in cities like London, there is a lot of resistance about giving money to universities which are seen to be already pretty rich and lots of resources and funded externally by government, and why would we fund them? (UWO 1).*

When asked if the city sees the university as elitist, the respondent stated:

*They will. Some of them will. Some of them will, the ones who know will say no it's been good, we have gotten this we have gotten that. People who know a little more likely will answer that way, because there are lots of examples where we have worked together. But there is a lot of resentment towards the university period (UWO 1).*

When the informant was asked if there were any notable factors for successful collaborations? The informant stated:

*Notable reasons why successful, we collaborate more with the private sector, there's no question and is still only about only 10 percent of the research we do. With the city it is always slow and its always, the Stiller deal took over 2 years, the Advanced Manufacturing Park took nearly 2 years, these things take a long time...The Fraunhofer deal was approved in council three times, it took months. The last one wasn't bad because there were details in the contract that councilors could have re-negotiated, we had new council and they wanted to open up and look at it all again, and the City Manager advised to not re-open it. But they could have, and it would have been worst then it was (UWO 1).*

Thus, it is clear that the informant does not feel that the there were any real



notable factors for successful collaboration, however noted that different institutional processing times can be a barrier in a collaborative effort. Furthermore, the informant elaborated on collaboration between Fanshawe College and Western University, however noted that Fanshawe has done very little in terms of applied research.

*Colleges are trying to position themselves as purveyors of applied research, when in actual fact they do a fraction of what universities do with companies, but you know it's a role, colleges are mainly teaching institutions, but apprenticeships and internships yes they work. True applied research around product services whatever, is probably not really what they do... They do have a parcel of land in the 10 acres in the advanced manufacturing park, but we are already building Fraunhofer, windy dome and our admin building etc. and they haven't done anything, we don't expect they will, the city is keen we do cooperate (UWO 1).*

The second key informant from Western University discussed collaborations within London from an academic perspective. The informant noted collaborations with Fanshawe College pertaining to program design in nursing and music, along with collaboration with the City of London for another downtown campus for Western.

*...The nursing program not at the outset of the nursing program, we are working on, exonerations take work, this is not meant to be negative connotation at all, but if they're worth doing, and you have partnerships, you have to pay attention to them all the time. So the partnership with Fanshawe in nursing is something I have been spending some time at since I have been there, the new Fanshawe music program is another one that we 're in development and we're working on. I have some direct, these are ones I have direct role to play...The downtown initiative with the City of London I am spending a lot of time on, which is trying to develop what westerns presence would be if we were provided City Hall, which is still an unknown commodity at this moment (UWO 2).*

Regarding collaborations the informant noted it is always important to consider:

*Always asking the question, do they meet with the academic priorities and mission of the institution? In other words keeping our eye on the ball of core business, what are we supposed to be doing here? How will this move our agenda, how do we leverage what we're doing, how does this help us leverage what we're doing. Then it would, we are very distributed control mechanism, a lot of people think*

*this is very central, universities have a range from being very central in control, many smaller institutions would probably have more characteristics of a command and control from the top, you have larger and older institutions like this one, like U of T would have incredibly distributed control, queens and western would be on that McGill another one that is fairly distributed control, so it is a matter of coordination and cooperation. Some of them of course have to meet with the strategic priorities, so the president's strategic priorities... (UWO 2).*

When the informant was asked if there were any notable barriers of collaborating with other institutions in London the informant stated that ensuring all parties get value out of the partnership and the ability to manage the collaboration.

*I would say when collaborating with, I think the issue of agenda and what is important to us... You have to manage the partnerships and you have to manage the expectations of the partnerships, so there is an industry partner looking to their resources to maximize the intellectual capital they are trying to purchase from the institution, and how we translate those resources... (UWO 2).*

Furthermore, the key informant was asked if there were any notable factors of success when collaborating with other institutions? The informant reiterated the importance of common goals, stated that communication amongst stakeholders and leadership are essential for successful collaborations.

*First of all, I think understanding the goal of the collaboration is. There can be no disagreement what the goal is, so sometimes getting there you require a great deal of patience. Understanding, having a common goal and how you are going to get there is the part where there, certainly lots of communication. But also, having people who get up in the morning who part of their job work on these things think about these things, these things do not take care of themselves, and in fact will fall apart without vigilance. Dedicated personnel on the activities, high competencies in communication and regularity of communications and expectation around communications and common goals would be the three (UWO 2).*

In addition, the informant was asked if Western University wants to attract the best students, how does the school resource the maintenance of a relationship to attempt to keep the students in London?

*So student's coming to school to London here at Western, and our capacity of trying to have them become citizens of London and stay. A couple of things to note, timely I think, because historical Western's student population in large parts of has been made up of students of southern Ontario and London proper, its history here is a university designed because there was one east of Toronto, the men of South western Ontario deserve a place to study and didn't have to drive to Toronto, because Queens had been given royal charter, but it was really designed to be a regional school, and for many years many many years was a regional school. And this might not have been an issue because people came from London and went to school here and stayed in London. About 42 – 45% comes from the GTA now, so we are a GTA feeder, as recipients of students of the GTA and is a good thing given the demographics. But it does then speak to the fact that if people go away to university, do they stay there or do they go back home wherever home is. And as we become more international, our goal would be to retain many of the international students that come here who want to make a home here in Canada and London and contribute to our economy, so the question you ask is a more timely one then it would have been or a more relevant one to western then it would have been 15 or 20 or 30 years ago. And so what do we do?*

*...Creating more opportunities for students to be in the community working, is a huge key to having people want to stay in and work and live in London...it is a distributive answer, we have personnel who work in continuing studies that deal with this; we've got the individual faculties on the program level who look after this. Through research western we have this women who is a my TAC officer who works on campus, and that's all about trying to create opportunities to live and learn beyond the borders of western proper but in London (UWO 2).*

Through discussion with two key informants from Western University various examples were presented where institutional collaboration with institutions within London do exist. However, there were several notable barriers and factors for success in establishing such partnerships. First, a reoccurring theme was the ability for all stakeholders involved to come together and establish complimentary agenda priorities and goals. Second, the ability for all institutions to work symbiotically given different the pace at which each institution works. Thirdly, communication and relationship maintenance was seen as an imperative. Finally, both informants noted leadership from within each institution participating as essential. All of the listed barriers/factors for success were seen as major drivers of successful or unsuccessful outcomes in terms of

institutional collaboration.

### **5.6.3 Institutional Relations: Examples, Factors of Success and Barriers Fanshawe College**

The key informant from Fanshawe College noted various collaborations with institutions in London, specifically noting ventures with Western University and the London Economic Development Corporation.

*With organizations such as LEDC (London Economic Development Corporation), LEDC is important because as they set their priorities for where they see opportunities for development are in terms of the labour market. We look at in our programming scheme in terms of our programming areas should we be developing what programming opportunities are there for re-development. We work through LEDC on initiatives like CDDIGIT and with Western on trying to bring into a centre of excellence in digital media to London, and that's clearly important when you have companies like digital extreme, big blue bubble, etc. and then you think about digital extreme who owned the market place in first person role playing games unreal tournament comes to mind. So that's an opportunity we need to be cumbersome of. Another one is in health care, now Fanshawe and Western have a collaborative nursing degree, it is offered under Western's degree but they put Fanshawe logo on it, for the students, students can come to Western directly or go to Fanshawe for the first two years and transfer to Western to finish... So there are lots of examples of good collaborative opportunities, the challenge is that there are not very many of them. So the ones we have are good... (Fanshawe 1).*

Interestingly, the informant points out various examples of other institutions that are creating more collaborative programming between universities and colleges, suggesting both parties need to work together and stop allowing elitism get in the way of progress.

*Now the other thing, because college education is so different then university education, it does not clearly articulate much more experiential and practical on the college side. But if I look at Lake Head you can do a three-year diploma at a engineering technology at an Ontario or any other college, go to Lake Head for two months, do the transition with the maths and then go directly into third year of engineering. We need more of those, if I take a look at what Comosa College in Victoria does they have a bridging program, so you have a two year engineering*

*diploma from a college, and go to either the university of British Columbia or the University of Victoria. And when people might question the quality of the University of Victoria and I am not I think it's a great university, its hard to question the quality of the university of British Columbia which is one of the top 30 research universities in the world. So we have to grow up and get over that, we need to develop these linkages, when we look at LEDC that says here are the opportunities whether its health care, digital, health care or agribusiness and we need to work together on those. And we need to get over this issue of credentialism (Fanshawe 1).*

When the informant was asked if it was fair to suggest that limited collaboration is occurring, the informant responded by stating:

*There's a couple of good things, a couple of discussions under way, but they are not as many as there should be. And from the jurisdiction that I came from, the number of collaborations between institutes and colleges were significantly higher, but again is reflection of the history, not a binary structure but a hybrid structure. And so if we don't do these things, others will. And the challenge in a market like London, if you only recruited locally, you could neither support Fanshawe or western, based on a population of 353,000, with London you build in what is Fanshawe traditional catchment range which is Middlesex, Oxford, Elgin, and Norfolk County and that maybe moves up to a bit over 500,000, you could not support Westerns numbers of Fanshawe's so we are net importers of people coming here.*

*So for the size of the community we have two amazing post-secondary's yes we have some privates doing some things we are not doing and that's absolutely fine, but we have to make sure we work together so that there are opportunities for students in pubic system and that those opportunities meet the needs of the community (Fanshawe 1).*

Further, the informant was asked if there were any notable barriers pertaining to institutional collaborations? The informant first noted that there was a significant difference in culture and history between the post-secondary education institutions in London. Secondly, the informant stated that in certain cases institutional representatives may not have the final say regarding a collaborative effort. Implying that consultation with other individuals at the respective institutions at times get in the way of moving towards collaborative efforts.

*I would say the challenge that we have is the difference in culture and history. And it takes a significant amount of work to overcome that. As I say we have some examples, two active of program collaboration one that may come to fruition the following September, and I am ware of a lot of other discussions, the issue with the discussions do they bare fruit? The individuals on both sides, and LEDC is sometimes indicated in there, that those individuals it may not be purely up to the individuals sitting there, there maybe to use an analogy of an ice berg a lot of people underneath the surface water that need to be consulted and that where things slow down. And again I would call that a cultural historical bit (Fanshawe I).*

The informant was then asked if there were any notable factors for successful collaborations with institutions within London. Similarly to previous informants, the informant from Fanshawe College noted leadership and complimentary agenda priorities as key factors.

*What makes them work when you have people that are enthusiastic, when they can see the benefit of both institutions and the benefit of both institutions usually boils down to doing the right things for students. That's what we're here for. We're here for a lot of reasons, but the primary one is students, and we need to make sure we're meeting their needs, your needs much more specifically (Fanshawe I).*

Overall, the informant from Fanshawe College noted a few examples of institutional collaboration within the city-region of London, including a partnership with Western University and the London Economic Development Corporation to bring a Centre of Excellence in Digital Media to London and programming collaborations between both post-secondary education institutions such as Nursing. Furthermore, the informant noted various barriers in terms of collaborating specifically between the two post-secondary education institutions in London. Specifically, elitism and institutional culture and history were the most prominent barriers discussed. The informant further stated that positive success factors for institutional collaboration included leadership and complimentary agenda priorities, which has been a common theme throughout all

discussions with key informants from all institutions.

This section has focused on gathering insight from the five key informants from the three respective institutions in London pertaining to past, current and future collaboration initiatives, notable barriers to institutional collaboration, as well as factors for successful collaboration. Through the discussions with the informants, it appears there are collaborations taking place, however the informants generally feel more could be done. Specifically, the informants suggest that minor collaborations do exist in London, however it is clear there is in fact limited collaboration between institutions. In addition, all informants noted similar barriers to institutional collaboration, as well as similar factors for success, which was highlighted by complimentary agenda priorities and leadership. Further discussion regarding the implications of these results will be present in Chapter 6.

### **5.7 The Future: Where Does London Go From Here?**

The key informants interviewed from the London Economic Development Corporation, Western University and Fanshawe College were asked if co-op or internships were a good medium to expose students to the local economy? Further, the informants were asked if collaboration between academia, industry and the government was necessary to attract and retain the highly skilled? These two questions aim to further understand how London can move forward and gain insight into the perspectives of the key informants of the respective institutions pertaining to the attraction and retention of the highly skilled in London.

### ***5.7.1 The Future: Where Does London Go From Here? London Economic Development Corporation***

The first key informant from the London Economic Development Corporation was first asked to reflect on the success of the University of Waterloo's world renowned co-op program and further asked if internships and co-op programs from post-secondary education institutions were effective mediums to expose students to the local economy? The first informant stated that co-ops were a great way to expose students to the local economy. When the informant was asked if Western University and Fanshawe College should be doing more of this? The respondent stated that Fanshawe College already has been proactive with co-op opportunities and Western University is putting staff in place to establish a better co-op program.

*I think Fanshawe already has a significant co-op enterprise. They have been well established in that field. Western less so, that's why Western has added some folks to establish that. So I think it's well worthwhile. However, the programs have to be designed so they are employer friendly, and there is enough preparation in the co-op services so the students are enthusiastic and employers are well trained to maximize the experience. The challenge has been in this economy, is that employers tend to not hire and it's a challenged time to introduce those programs, existing workforce see students coming and say well now are they doing this so they don't have to hire? Employers are tending to work existing workforce longer or harder hours, rather than add to their workforce. Because they don't want to then be in a lay-off situation so there are some really interesting dynamics right now. I am pleased to see it, but it is going to a tougher sell right now, and the saturated market place. They also have to make sure the programs are relevant (LEDC 1).*

Further, the informant was asked if there were any notable barriers or positive factors for success regarding institutional collaboration with the aim of attracting and retaining graduates?

*...We had a meeting last week and there were two representatives of Fanshawe and Western and there was a Fanshawe student council present. So I should measure one other collaboration, another one is Biz Inc. We have been co-*



*funding the business incubator at both Fanshawe and Western, the staff currently that are there are paid through LEDC. And John Pollock works for use technically. We are helping him establish the board helping them establish the programs and services, so that is trying to think about helping the entrepreneurial spirit not just at Ivey but across campus and bridging the opportunities between Fanshawe and Western students. Where Fanshawe might have the technical delivery skills of some the ideas that may come up as well as generate their own. There is another example how we have faculty representation or institutional, student council representation and community representation on the steering committee for that.*

*Big organizations, multi-level hopeless bureaucracies, and different traditions and different you know there still people who are academically focused as opposed to saying if we develop this academic skill how does it then apply? So even though Western has its modo 'ultitias veritas'...(LEDC 1).*

Moreover, the informant was asked if they felt collaboration between academia, industry and government was an appropriate option to attract and retain graduates or highly skilled individuals in London? Is London aligning these needs?

*I think you will see over the next year, even greater synergy between the parties. Now some of it will be, we have a new president at Western, a new provost, five new deans. Fanshawe will be going over some changes at some point; Howard Rundle has been president for some time. I am not saying he's not collaborative; institutions tend to get held in certain ways for periods of time. Once there is some more changes, and some of the VP's are going leave with two years or so, and once that happens there will be another openness, a learning curve but then an openness. You have to look at the institutional dynamics, so you have government relations and funding, community needs, unemployment you have city council and the political noshing, and then you've got the institutions who get huge junks of funding from those areas. So you have to develop the agenda of common interests. So those are interesting forces into alignment (LEDC 1).*

Further, the informant was asked if the institutions boards in place and their views are important variables to consider?

*For those institutions, do they serve the institution or do they serve the community?*

*Interviewer: They serve the institution.*

*But, should they? London city council does have a representative on the board of*

*governors at Western for an example. So that would be interesting for you go to and interview city of London representatives on that board as an example, to say what is the government structure. By the way, the alumni association also appoints to the board of governors and the senate, and look for people who are going to reflect an alumni perspective (LEDC 1).*

The informant was asked if there was need to have a stronger relationship between the institutions and the community?

*I think both institutions [Referring to Western University and Fanshawe College] would benefit from a deliberate community engagement plan.*

*Interviewer: Nothing like that currently exists?*

*No, I don't think so. I think there is a...remember Fanshawe has campuses in Woodstock, St Thomas and Simcoe. So they actually tend to in those communities be very active, they have a size and a scope, so whoever is the leader or director of that campus, tends to be part of that chamber of commerce, so there is a stronger. Western tends, is a larger beast, it's a town of 60,000 in another. I think there could be some more deliberate approaches. There is no malice in what I'm saying, no one is saying we don't want too; it's about how to make it happen. There is lots of interchange, points of intersection, but I am not sure there is a whole to it.*

*It is not a question I don't think of awakening a sleeping giant, I think it is a question of just developing the means, I think there is an awareness by the broader community that Fanshawe and Western are significant assets, it's how to lever that relationship in a more strategic way, and some of it is happening. I mean, with just being present on LEDC board, having a joint venture, those are all good signs, so it's not about building on those a bit more and relationships. And I am sure something will happen in the next year where we will see that happening (LEDC 1).*

The second key informant from the London Economic Development Corporation was also asked to reflect on the University of Waterloo's world-renowned co-op program and discuss if internships and a co-op program from post-secondary education institutions was an effective medium to expose students to the local economy? The second key informant stated that it was unlikely a student would stay in a city-region because if a successful co-op program.

*Well, likely not, a student is still going to pursue, they may stay because they like that, Waterloo's co-op is a tough one to look at that RIM absorbs so many people in a short period of time. You almost need to go back and do a study of where people went in Waterloo co-op, and I know a lot of people that did co-op in Waterloo and none of them ended up being a full time employee in Waterloo. So I think the issue, with the guerilla they have with RIM and because of RIM's head office grew so fast, they absorbed people from every element of the job spectrum, sales marketing, product operations they have really had the whole gamut on the operations of the engineering side. I think its tough to look at, because if you look at anyone else's co-op program, you'd find a lot different parameter, and we're going to see that now and RIM is going to take virtually no co-op students. So this year what we're hearing that it's difficult for Waterloo students to find placements and looking in places like London for placements (LEDC 2).*

However, the informant went on to further elaborate on the importance of co-op opportunities and stated that internships are significant.

*But I think the thing is I see co-op being a big opportunity, because the problem is as the pensionable workforce across the country, because there are so many baby boomers waiting and holding back to waiting for their stock market portfolio's to improve. Two three four years, working past what they have planned, we'll be back to the talent crunch and people will be going, companies are going to have to get out of, even London here, a high unemployment area, this well end. Whether its 12 months 18 months or 24 months the open job market even for unskilled people will start to decline, and you cant be back to this where I can get somebody with 5 year job experience, and companies will have to lean more and more on co-op opportunities, and universities will be better placed if they open because I think it's a good way for both sides to match their needs, the student gets their needs matched the local employer gets their needs matched, I am a big believer in internships (LEDC 2).*

The second key informant from the London Economic Development Corporation was then asked if collaboration between academia, industry and government was an appropriate option to attract and retain graduates or highly skilled individuals in London?

*Yes...The only other way you could do it is financial incentives, but I don't necessarily think those will work for you because you attracting people because of the money opposed to a want to be in the community or want to be in the position. You could always do it with money but I don't think you get the long-term impact. You incentive them to get them started with the position and you hope the*

*employer increases the compensation, and because someone started there for money, its not necessary they did it for the job option, and took it because it was an easy option. Otherwise, I don't think there is really any other way to do it, if you don't offer a collaboration whether it is co-op or an internship or something of that nature I don't know how else you attract the people in. I mean I guess the other thing you can do is have the government decide this is going to be a centre of excellence for this type of activity, and then they put subsidies, to cause companies to start up in those areas. But then your back into when the subsidies are over, is that a sustainable industry? We have seen that over and over again both western and eastern Canada with COAA with the Atlantic opportunity fund where they have tried to start up all these businesses in these other areas, and while they have subsidies they're great and once the subsidies end then those companies fold (LEDC 2).*

While there was a slight variation between the two key informants from the London Economic Development Corporation regarding using co-op programs as means to expose to students to the local economy as a sustainable attraction and retention method, both informants stated that collaboration between academia, industry and government was the only way to approach the attraction and retention of the highly skilled in London. However, neither of the two informants was sure how to do it.

### ***5.7.2 The Future: Where Does London Go From Here? Western University***

The first key informant from Western University was asked if they thought collaboration between academia, industry and government was an appropriate option to attract and retain graduates or highly individuals in London? The informant made it clear that it was the only way to approach such an activity, but noted that leadership was a key concern.

*I think that is the only way you're going to do it, but frankly the question is who is going to lead that and how is it going to be organized? And that's a leadership question...I think it's great that you're doing this, I think the questions you are asking is regarding the community but is a global question and how local communities develop an advantage globally to attract and retain the best and which communities can do this at a reasonable cost and have the best infrastructure will win (UWO 1).*

The second key informant from Western University was then asked to discuss how they feel about internships and co-op opportunities as a medium to expose students to the local economy? The informant not only felt that co-op's and internships were a tool to attract students to stay in the local economy, but felt they were very important to Western University in terms of student satisfaction.

*I think there are more and more students that come to university have expectations about what that education is going to deliver, much different from when I was an undergraduate student, from doing a term abroad, or having an international experience was not accessible to a much higher proportion of students across Ontario then it is now. So students are looking for real world experience and real world skills, and many do look at programs when they go to fairs in Toronto in the fall, they ask for opportunities in the work study, chances to be engaged in lab work or in the community, so I think yes. The more internship experiences we have for students the better, we learn from that, we learn whether the skills being taught are relevant in the work force, and the students get out there and enhance their reputation and our reputation. A lot of students that get out there get placed in if not those jobs similar jobs. They are known to companies. I do think it is a way in which students can be attracted to stay in a particular industry and particular community. So when students make choices about coming to university, I think it plays a bigger role then it used too, and we need to think about how we create those kinds of opportunities across the institutional suite of offerings (UWO 2).*

Furthermore, the informant was asked going forward, if they felt that collaboration between academic, industry and government was an appropriate option to attract and retain graduates or the highly skilled to London? The informant stated that it was necessary and discussed ideas of how attracting and retaining the highly skilled in London could move forward.

*It's an imperative right....It's also about branding as well, and being able to articulate what it is the city has to offer, not only looking at the failures in the city, but what does the city have to offer, what are our stats on our ability to retain and attract. I mean with discussions with the Mayor and Howard Rundle at Fanshawe, I mean our international people Julie McMullan and the international players at Huron Brescia and Kings, this city could do a much better job at branding it self as an education city, so a destination. So if we bring people here*

*for our education, I would ask the question, what is the relationship between going to school somewhere for people who aren't of this community to begin with, and the correlation with their first place of residency post- school? Is it easier to attract to be a contributing citizen after being a student at Western then it is someone who is sitting downtown Toronto now or you come to them and say are you interested in a position at Western? Anecdotally, it is a lot easier if they have family here or are Western grad...if you have not been to the city, or had experiences in the city and you have many choices. Coming to a second-tier city I think it's a harder sell from someone coming from Vancouver...(UWO 2).*

The informant further discusses the opportunity to leverage students and graduates of Western University, as they would be easier to attract to the city-region of London opposed to a highly skilled individual or student who knows nothing about the community.

*So if we can attract people here as an education city, safe, lots of choices, lots of opportunities, lots of excellence, what happens to them on the outflow or whether London is a place on their radar screen that they could or would consider staying and contributing as a lifelong member of the community is a whole lot higher than if we didn't get them here in the first place (UWO 2).*

### **5.7.3 The Future: Where Does London Go From Here? Fanshawe College**

The informant from Fanshawe College was first asked to discuss their opinion regarding internships and co-op programs offered by post-secondary education institutions as a medium to expose students to the local economy? The informant stated that they were very important and went on to further elaborate and discusses the college's experiential learning initiatives.

*Absolutely and in fact we do. We have just reviewed our co-op policy under an umbrella of experiential learning. Pretty well every single student here, I wont say 100% I will say probably 90 plus % has the opportunity for some form of experiential learning, whether its co-op which is a very formal type of education where it links the practical elements of the theoretical right with the job site, and that can be reflected in the students credential. To externships, internships, placements, clinical, etc. so as we have defined this we probably have about 10 categories of experiential learning, now we are trying to follow the ministries*

*binding policy directives on those policies on what those categories are. But students will have all sorts of opportunities, whether it is working on a collaborative project for graduating, as part of the graduating project, whether its doing applied research for a company, whether its actually doing the formal co-op...(Fanshawe 1).*

Further, the informant was asked if they felt that collaboration between academia, industry and government was an appropriate option to attract and retain graduates or the highly skilled to the city-region of London? The respondent stated that it was essential, but how institutions can find common interests and pursue such collaboration is the difficult part.

*Absolutely, it's essential...What I would say that there are all sorts of collaborative opportunities that exist. So through our applied research we have lots of collaboration with companies with lots of placements... And I would say that the coordination is more ad hoc, the challenge is going to be moving forward can you force a scholar to do something particularly because someone says they should do it? Particularly within universities you have this issue of academic freedom, so the issue is how does this impinge on that? Or does it even impinge on it? And the other aspect is what are the levers you used to bring this together? If you are bringing projects together where you bring certain resources in which one time could involve somebody from industry somebody from college, and another time somebody from a college and somebody from a university. So how do you links those pieces together? There needs to be an incentive, human nature, what's in it for me? ...For the college when we get into these things, the premise we always start with, is what's best for the student, when we deploy resources, look at new programs, is it best for the students, will it get students towards a job, will it get them a job that gives them an opportunity for a good career? (Fanshawe 1).*

This section has presented the results of how the informants of the London Economic Development Corporation, Western University and Fanshawe College feel about co-op and internship opportunities' as a medium to expose students to the local economy as well as if collaboration between academia, industry and government was necessary to attract and retain the highly skilled to the city-region. These two points of

discussion allow for greater insight into how London can move forward to attract and retain the highly skilled. The results indicate that co-op is an effective means to expose students to the local economy, and all informants felt that the collaboration between academia, industry and government is essential in attracting and retaining the highly skilled to the city-region of London.

## **5.8 Conclusion**

This chapter has presented the findings for the critical case study of the city-region of London through five key informant interviews. The results have been displayed in text format and presented in summary in *Table 6*. In summary, all informants agreed that attracting and retaining the highly skilled does contribute to economic development. Additionally, there was a lot of uncertainty pertaining to how the city-region of London was performing in terms of attracting and retaining the highly skilled. Three of the five informants were not sure, while one informant from the London Economic Development Corporation felt the city-region was performing fairly well and one key informant from Western University felt London's performance was not very good. Further, all informants felt that institutional relations are important to achieve goals within the city-region. The London Economic Development Corporation and Fanshawe College felt that their respective institutions had a role in attracting and retaining the highly skilled to London. In contrast, one informant from Western University felt that technically their institution does not have a role and the second key informant felt that Western University does have a role, but focused predominately on the recruitment and retention of faculty. In addition, the results suggest that all informants felt that the barriers and success factors of



institutional collaboration were for stakeholders to find mutual benefit as well as demonstrate strong leadership and communication. Finally, the informants all agreed that collaboration between academia, industry and government are essential to attract and retain the highly skilled to the city-region of London. The implications of the results presented in this chapter will be further evaluated and discussed in the following chapter.

## **Chapter 6**

### **Discussion and Conclusion**

#### **6.1 Conclusions**

This study was prompted by the difficulties medium-sized cities in Canada have experienced regarding the out-migration of their highly skilled individuals. Particular focus was paid to Ontario given that the province's population constitutes a large proportion of the country's medium-sized city-regions. Thus, this study focused on how and to what extent institutional relations are leveraging post-secondary education institutions to attract and retain the highly skilled in medium-sized city-regions in Ontario. Given how important post-secondary education institutions are in producing and attracting the highly skilled, particular attention was paid to both universities and colleges in the medium-sized city-regions selected as well as the local economic development institutions. The local economic development institutions are either administrative arms of the city-region's local government or are under their direct control. All institutions studied publish strategic policy documents on a regular basis, thus a policy document analysis was conducted to investigate how and to what extent relations between these specific institutions have been leveraged to attract and retain the highly skilled in their respective city-region. In addition, a critical case study of the city-region of London, Ontario was conducted. Five key informants were interviewed from the London Economic Development Corporation, Western University and Fanshawe College with the aim to gain further insight into the findings from the policy document analysis. Specifically, the content analysis and the critical case study sought to understand:

### Policy Document Analysis

- 1) If the attraction and retention of the highly skilled to the local city-region is a strategic priority for the three local institutions, and how and to what extent it is being done.
- 2) If collaboration exists amongst any of the three institutions to attract and retain the highly skilled to the local city-region.
- 3) If it is a strategic priority for the three institutions to promote post-secondary education - community relations.
- 4) If the attraction and retention of the highly skilled to the local post-secondary education institutions is a priority for the three local institutions.

### Critical Case Study: London

- 1) Investigate if the informants believe the attraction and retention of the highly skilled to the city-region promotes economic development.
- 2) Understand how the informants feel London is performing in terms of attracting and retaining the highly skilled.
- 3) Investigate whether institutions collaborate to achieve goals in their respective city-region and identify the barriers and factors for successful collaborations.
- 4) Identify which institutions believe they have a role in the attraction and retention of the highly skilled to the city-region.
- 5) Identify if the informants believe that institutional collaboration is necessary to attract and retain the highly skilled to the city-region.

From these listed objectives, various key issues emerged in correspondence with the economic geography, human capital and the institutionalist literatures. Thus, this chapter will discuss the issues that have emerged within this study in relation to the field's literature. Finally, the limitations of the study and subsequent recommendations for future research and policy application will be presented.

## 6.2 Discussion

This section provides the linkage between the listed objectives of the study and the literature reviewed in Chapter 2. The discussion is organized first by the policy document analysis followed by the critical case study of London, Ontario. While the themes and objectives listed for the policy document analysis and the critical case study

are similar, the policy document analysis provides a general overview while the critical case study sheds a more detailed light pertaining to the research objectives in a complementary manner. Given that the literature suggests that attracting and retaining the highly skilled is a vital component of economic development in the knowledge economy, and that post-secondary education institutions are seen as knowledge-based assets and institutional collaboration an effective means of achieving goals amongst local institutions, it is surprising that only limited effort is being made by medium-sized city-regions in Ontario to attract and retain the highly skilled. Richard Florida's creative class theory suggests that most cities can achieve economic prosperity if they improve their amenities and promote high technology and diversity, in an effort to attract and retain top talent. However, as Lewis and Donald (2010) aptly point out, the way in which Florida theorizes, quantifies and applies the creative class theory tends to marginalize smaller Canadian city-regions. Lewis and Donald's theory is further supported by Bradford (2004). This is cause for concern given that Florida's creative class theory has predominately shaped recent urban economic policy coupled with the documented migration of the highly skilled to the country's largest city-regions (Backstead et al, 2008).

### ***6.2.1 Policy Document Analysis***

The first objective of this study was to investigate whether the attraction and retention of the highly skilled was a strategic priority for the local economic development institution(s) and both post-secondary education institutions in the medium-sized city-regions studied in Ontario. Florida et al. (2010) suggest that firms locate to gain

competitive advantages as opposed to allowing customers and suppliers to dictate their geographic location, thus locating in areas of high concentrations of human capital. The results suggest that the local economic development institutions support the findings in the literature that the attraction and retention of the highly skilled does promote economic development (Ullman, 1958), (Jacobs, 1969), (Lucas, 1988), (Berry & Glaeser, 2005), (O'Hagan, 2008), (Florida, 2008) and (Florida et al., 2010). However, only two of the post-secondary education institutions (both colleges) agreed that the attraction and retention of the highly skilled to the local city-region was a priority, which supports the findings of Feldman and Desroscher (2003) who suggested that history and institutional context play a large role in the economic benefits that a local area may receive from research-intensive universities. However, this contradicts further findings from the strategic policy documents, which clearly note that all post-secondary education institutions stated community relations as a strategic objective. While all of the local economic development institutions noted that the attraction and retention of the highly skilled was a strategic priority, limited actions were evident in the policy documents to address this strategic goal by both the local economic development institutions and post-secondary education institutions. The only institutions to provide strategic evidence of programming to attract and retain the highly skilled were the economic development institutions in the city-regions of Hamilton, London and Sudbury. Of those programs there was very little evidence of a systematic strategy in place. In the case of Hamilton, the local economic development institution created a 'coordinated talent recruitment' program where key leaders in the community would work together to entice the highly skilled to settle in Hamilton. However, they had a very limited goal that of recruiting only

two individuals a year. It is obvious that it is not a large program, since it would be hard to foresee any major contributions to the local economic development of Hamilton from two successful recruitments a year. A similar program in London called 'International Skills Connection', however is a partnership between London and international communities which encourages skilled workers in partnered international communities to come to London to address specific sector labour shortages. No statistics were provided regarding any successful outcomes of the program. Sudbury did note that there was a systematic program for the recruitment of skilled workers, called the 'Physician Recruitment Program'. Unfortunately, this program targets only one skill set and thus naturally makes it small in scale. Furthermore, no incentives were observed from any of the seven city-regions studied to attract or retain the highly skilled. Thus, while attracting and retaining the highly skilled is believed to be a critical objective of all of the city-regions economic development institutions, however actual actions to address this issue are limited if not non-existent.

While the majority of scholars who emphasized the importance of post-secondary education institutions have typically referred to universities, community colleges in Ontario provide similar functions in terms of human capital development. Florida (1999) suggested that universities are essential for regional development, as they function as magnets to the highly skilled, but are not by themselves sufficient. Further, Gertler and Vindorai (2005) argue that universities are essential for innovation and knowledge creation, and further asserted that post-secondary education institutions were imperative components of the knowledge infrastructure. In contrast, Florida et al. (2010) found a weak association between the university and regional income and technology in Canada,

which is thought to be due to the flow of talent between regions. The findings of this study provide empirical evidence that while post-secondary education institutions are thought to have the ability to promote economic development, particularly in the attraction of the highly skilled; it is generally not part of their strategic priorities. Of the two post-secondary education institutions that did refer to the attraction and retention of the highly skilled as a strategic priority, Fanshawe College in London, Ontario only implied this was a strategic priority through their institutional policy A-40 'Meeting Local Labour Market Needs'. Surprisingly, Niagara College which stated that it was a strategic priority to attract and retain students to the local labour market, however did not supply any systematic means of doing so. Thus, it is evident that the local economic development institutions are not utilizing the post-secondary education institutions as integral resources in the knowledge economy. This further implies that the local post-secondary education institutions generally do not have a role in the attraction and retention of the highly skilled to the local labour market.

Moreover, scholars have frequently noted that institutional collaboration can increase a region's competitiveness and foster innovation in the knowledge economy (Leibovitz, 2003; Etzkowitz and Dzisah, 2008; Smith & Bagchi-Sen, 2010). This type of institutional collaboration has also been referred to by Leibovitz (2003) as the 'third wave', which essentially is an attempt to merge the dichotomy of the neoliberal market economy with the state-led economic policy paradigm, developing an institutional infrastructure that may merge the public and private sectors. However, only three of the seven city-regions noted that institutional collaboration was in effect promoted to attract and retain the highly skilled to their respective city-region. The three city-regions'

economic development institutions which declared a desire to work with local institutions or stakeholders in regards to attracting and retaining the highly skilled were Hamilton, Kitchener-Waterloo and St. Catharines-Niagara. St. Catharines-Niagara was the only city-region to collaborate with a local post-secondary education institution to provide the local labour market with the skill sets desired. Hamilton and Kitchener-Waterloo noted working with industry leaders and community stakeholders to attract and retain highly skilled in specific areas of need or targeted recruits generally. Of the city-regions collaborating with other local institutions, post-secondary educations are largely ignored. This is interesting given that various scholars have noted that universities are integral components of the knowledge economy, as they naturally attract students and inherently produce highly skilled individuals (Florida, 1999; Thanki, 1999; Berry & Glaeser, 2005; Mellander & Florida, 2006; Coenen, 2007; Lendel, 2010; Florida et al., 2010; Darchen & Tremblay, 2010). However, this reinforces the findings of Feldman and Desroscher (2003) who argued that a university's history and institutional context largely affects the institution's ability and desire to promote local economic development. On the other hand, the results of the analysis provide evidence that a majority of the post-secondary education institutions state strategic objectives to attract and retain students, which supports the assertion by Florida (1999) and other various scholars that post-secondary education institutions act as a magnet for talent. In contrast, only Hamilton and Sudbury's local economic development institutions made any reference to attracting or retaining the highly skilled to the local post-secondary education institutions.

Further, the lack of collaboration between government, the private sector and post-secondary education institutions indicates that the findings by Leibovitz (2003) have



been ignored, specifically when marrying the institutional literature with the human capital economic development literature. The lack of relations between the post-secondary education institutions regarding the attraction and retention of the highly skilled provides a significant area of improvement within their own stated objective of promoting community relations, as limited effort is evident. The findings in this study do not dispute the theory by Glaeser et al., (2001) who suggested that universities play a significant role in developing an initial advantage in human capital for a region. However if the post-secondary education institutions are not utilized, it is unlikely an advantage in human capital can occur as this study provides empirical evidence that limited if any actions are being taken place by the local institutions to develop a local advantage of human capital. This study's findings further support the argument by Florida (1999) that the presence of post-secondary education institutions is not sufficient as a means of economic development in the knowledge economy. Adding further value to the findings of Florida (2010) who theorized that the reason for a weak association between the university and regional income was due to the migration of the highly skilled out of the geographic region. Lendel (2010) states that the highly skilled are one of the seven products produced by universities, however much of the literature regarding the economic impact of post-secondary education institutions largely overlooks the impact and ability of the institutions to attract and supply the highly skilled to the local labour market. The findings of this study indicate that of the seven medium-sized city-regions studied, the local post-secondary education institutions are a significantly underutilized resource in terms of attracting and retaining the highly skilled to the local labour market, and limited institutional collaboration is evident.

### ***6.2.2 Critical Case Study: Attracting and Retaining the Highly Skilled, How is London Performing?***

The purpose of conducting key informant interviews in London was to further investigate the findings of the seven medium-sized city-regions in the policy document analysis. However, it is worth noting that there was potential response bias during the interview process, which may have contained a political element to the informant's responses. The responses were politicized to suggest that there was more going on than there actually was. The first objective was to gain insight as to whether the key informants of the London Economic Development Corporation, Western University and Fanshawe College felt attracting and retaining the highly skilled contributes to economic development. As stated in section 6.2.1, the literature strongly advocates and has provided various examples of evidence in which the concentration of the highly skilled within a specific geographic region significantly contributes to economic development (Ullman, 1958), (Jacobs, 1969), (Lucas, 1988), (Florida, 1999), (Berry & Glaeser, 2005), (O'Hagan, 2008), (Florida, 2008) and (Florida et al., 2010). All key informants stated that they believed that the concentration of the highly skilled in a city-region does in fact promote economic development. Thus, clearly all of the key informants representing the three institutions are aware of the importance of attracting and retaining the highly skilled to a given city-region and support the current literature.

Furthermore, when the informants were asked their opinion on London's performance in terms of attracting and retaining the highly skilled, it was observed that there was variation between and within institutions. Of the five key informants interviewed, three stated that they were not sure how the city-region was performing and

noted that it was hard to measure. However, one of the informants from the London Economic Development Corporation described a mismatch between the local labour market supply and demand suggesting that what post-secondary education institutions are teaching is not necessarily up to date in terms of what employers need in terms of skills from graduate students. In contrast, the other key informant from the London Economic Development Corporation felt London was performing fairly well in terms of attracting and retaining the highly skilled. On the other hand, this key informant observed that there is a glaring misconception within the local media that students were fleeing London, which cannot be substantiated since a study of the university has not been conducted since 2007. Further, the informant went on to emphasize that Western University is a 'net exchange' of the highly skilled in London, where 15 percent are from the local catchment area enter Western University and the same 15 percent of graduates stay on in the region, thus putting paid to the media's claim otherwise. The informant further stated that London intends to increase the percentage of students which settle in the region by another 1 to 3 percent. The informant went on to explain that Fanshawe College on the other hand has 60 percent of students from the local catchment area, and 85 percent stay in the city-region of London. This further demonstrates that Western University is net neutral in terms of producing the highly skilled for London, while Fanshawe College is a significant net importer of talent. Interestingly, the informant further expressed that attracting mid-career professionals back to London once they have had international experiences was more important for the city-region of London than attracting inexperienced youth. This poses severe long-term demographic and economic consequences for the city-region given the province's future demographic projections.

However, this assertion contradicts the findings within the London Economic Development Corporation's workforce strategy, which indicates that the city-region is facing major concerns regarding the growth of the 15-44 year old population (*See Appendix C*). Moreover, the London work force strategy suggested that all things remaining stable, London would not be able to replenish the local labour force's retiring population (London Economic Development Corporation, 2007, p.29).

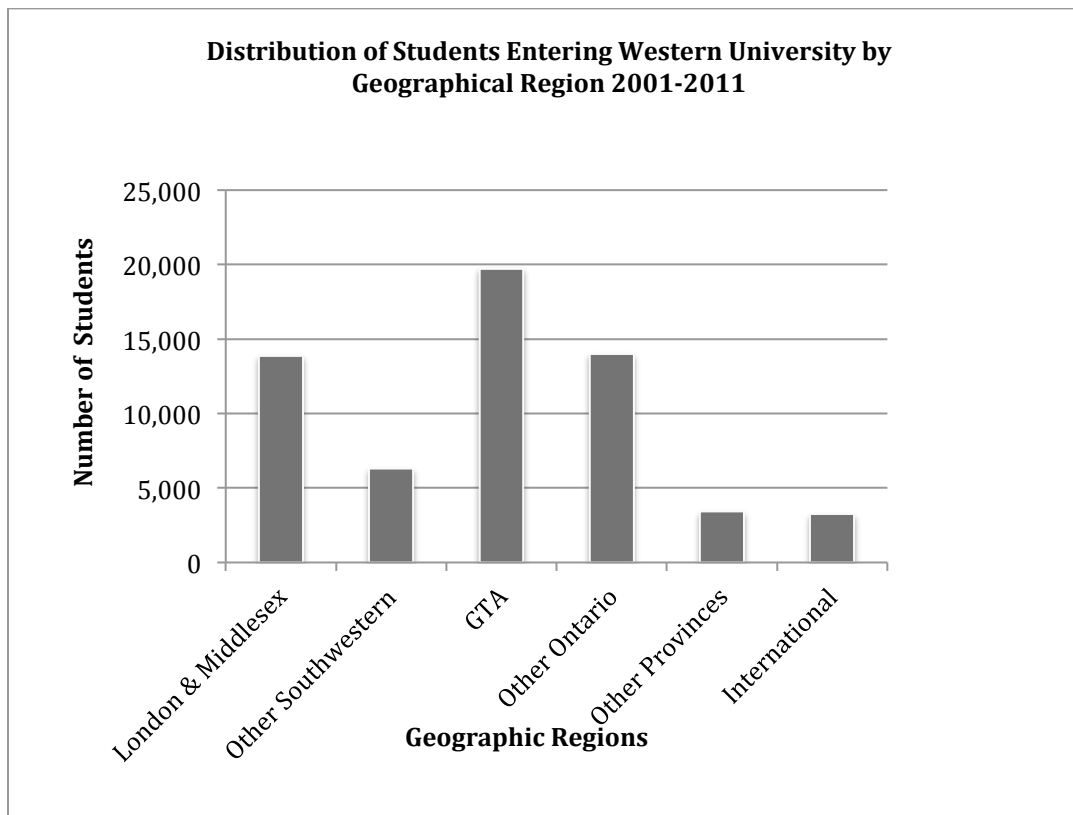
Furthermore, the key informant from Fanshawe College shared a similar view in terms of London's performance stating that the college's role is of a net talent importer to the city-region of London, as evidenced by the statistics produced by the institution as part of its regular labour force monitoring. In addition, the informant asserted that approximately 53 to 55 percent of Fanshawe graduates stay within the city-region of London, more specifically the four counties surrounding London. This in itself contradicts the interpretation by the key informant of the London Economic Development Corporation who suggested that 85 percent of Fanshawe graduates stay in London. Additionally, of the two key informants from Western University, one felt London was not performing as well as expected, while the other confessed uncertainty. One of the key informants from Western University further suggested that it is difficult to retain students graduating from Western University as many come to the institution from the Greater Toronto Area (GTA) and consequently return due to greater job opportunities and personal choice. Moreover, the second key informant from Western University stated that the desire for students to stay in London far exceeds the jobs available to them post-graduation. This coincides with the statement by one of the London Economic Development Corporation informants, suggesting that there is a skills mismatch between

the graduates and the local labour market in the city-region of London. Responses from the informants from the London Economic Development Corporation suggested that the city-region does not have a problem generally in terms of attracting and retaining talent from outside of the region and from local post-secondary education institutions. All informants alluded to London's primary advantage, which is its cost of living and quality of life. The consensus from the key informants was that amenities do play a significant role in attracting and retaining the highly skilled to the city-region, which is supported by Glaeser, 1998; Glaeser et al., 2001; Clark, 2003; and Shapiro, 2006. However, it was noted that amenities are relative, as individuals from city-regions or communities smaller than London would find the amenities London has to offer significant. Whereas individuals from the GTA would not be likely to find the amenities sufficient unless the job opportunities were substantial which is consistent with the findings of Darchen and Tremblay (2010).

Given the uncertainty as to how London is actually performing in terms of attracting and retaining the graduates in London, data was taken from both institutions regarding the geographic origin of incoming students and the geographic distribution of alumni to establish a clearer picture of the landscape in London. First, as noted by key informants it is imperative to understand where the students come from that attend both institutions. If you refer to *Figure 7*, it is clear that over the past decade, the majority of incoming students to Western University come from the Greater Toronto Area (GTA). Specifically, 19,710 students over the past ten years have come from the GTA, which accounts for 32.5 percent of all incoming students over this time period. Additionally,

London and Middlesex County supplied 13,865 students over the past ten years, which accounts for 22.8 percent of all incoming students.

**Figure 7: Geographic Origin of Students Entering Western University**

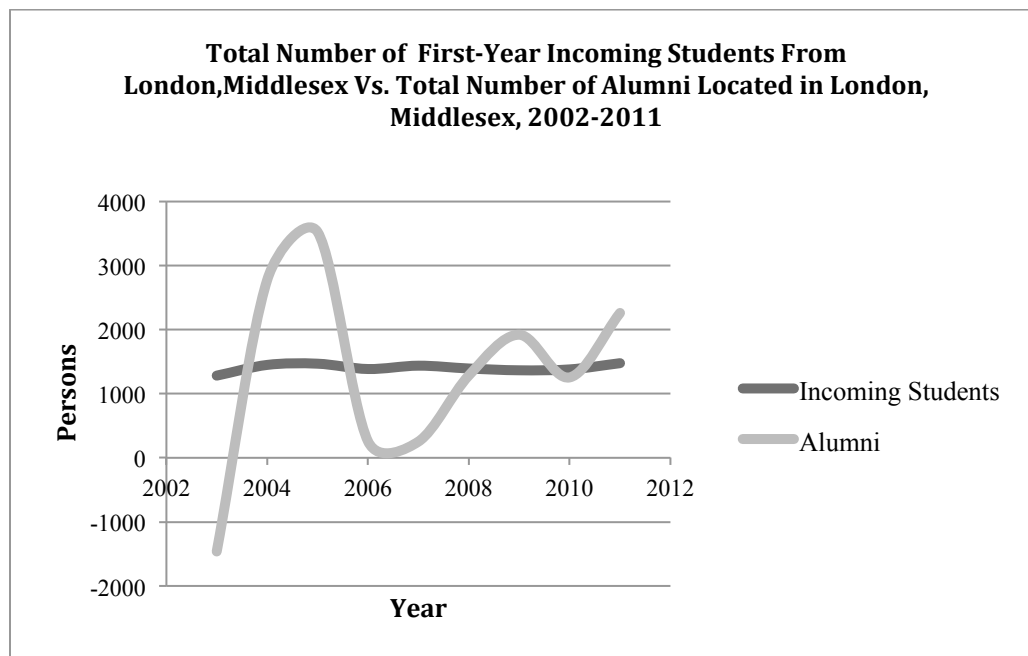


*(Western University Facts, 2012)*

Further, according to Western University's institutional data book the total amount of incoming first-year students from London and Middlesex County between 2002 and 2011 totals 12,640, while the aggregate increase in alumni living in London and Middlesex County during this time period is only 12,072. This indicates that of the students coming from the city-region of London, Ontario there is a net loss of 568 alumni over the nine-year period. Over the period of 2002-2011 of all incoming first-year students 25.3 percent were from London and Middlesex County, while the amount of

alumni added to the London and Middlesex County region amounted to 17 percent of total graduates over the same time period (See *Figure 8*). Due to the lack of data, it was not possible to track each year's graduate location decisions for employment. The measurement of additional alumni to London and Middlesex County does not prove that the alumni are from the same year's graduating class, however it does show a picture of the general contribution or lack thereof of Western University in terms of aggregate contribution of the highly skilled to the city-region of London over the time period.

**Figure 8: London's Net Loss in Western University Graduates**



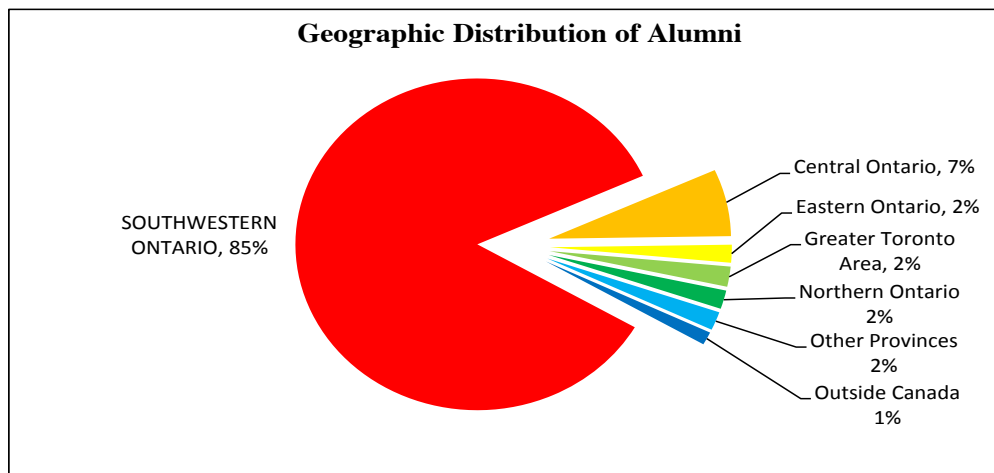
*(Data Source: Western University Facts, 2012)*

It is clear that the incoming students from the London and Middlesex County region are constantly flowing to Western University, yet the flux in alumni year after year is entirely inconsistent. This provides further evidence that a constant flow of graduates relocating to the city-region of London post-graduation does not exist. More importantly, Western University accounts for a net loss of the highly skilled in the city-region of

London. These findings are consistent with those of Brown et al., (2010) who provided statistical evidence that medium-sized cities in Canada are experiencing an out-migration of the highly skilled.

Moreover, Fanshawe College did not have detailed data available for interpretation but did provide the distribution of alumni as of 2008/09 displayed in *Figure 9*, in their ‘Meeting Labour Market Needs Report’.

**Figure 9: Distribution of Fanshawe College’s Alumni as of 2008/09**



*(Fanshawe College, 2011b)*

According to *Figure 9*, 97 percent of the alumni live and work in Ontario, while 85 percent are in Southwestern Ontario. According to Fanshawe College, just over fifty percent of their students originate in the local area of the College and another nineteen percent from the surrounding Southwestern Ontario area (Fanshawe College, 2011b, p.7). Therefore, approximately 70 percent of Fanshawe’s students come from Southwestern Ontario, providing a net import of talent to the region of Southwestern Ontario. However, Southwestern Ontario constitutes a large geographic area which includes other medium-sized city-regions including Windsor and Kitchener-Waterloo. Due to the lack of data



available, it is unclear how many skilled individuals if any Fanshawe College imports to the London local labour market over and above what the local catchment area supplies to the college. However, the key informant from Fanshawe College stated that between 53 and 55 percent of Fanshawe's alumni do stay within the city-region of London post-graduation, which at the most provides an additional 5 percent of highly skilled individuals to the city-region of London. The findings from both Western University and Fanshawe College support the findings of the 'Three T's Reference Report' conducted by the Martin Prosperity Institute which indicated that the city-region of London does not rank well on educational measures of human capital and is below peer city-region averages of the brain drain/gain index, suggesting that significant numbers of students are leaving London after graduation (Martin Prosperity Institute, 2009). These results raise serious concerns about the perception of the key informants and more importantly the institutions within the city-region of London. These findings also provide insight into a possible reason why the London Economic Development Corporation has conducted limited exercises to address the attraction and retention of the highly skilled in London, as there are clear differences in perceptions amongst and within the local institutions regarding the flow of graduates.

### ***6.2.3 Critical Case Study: Institutional Relations and Moving Forward***

Institutional collaboration has been advocated by scholars such as Leibovitz, (2003), Etzkowitz and Dzisah, (2008) and Smith and Bagchi-Sen, (2010) as essential to a region's ability to foster innovation and economic growth specifically in the 'knowledge economy'. All informants clearly stated that institutional collaboration was important to

achieve goals in London. The responses from the informants are suggesting that collaboration in the context of attracting and retaining the highly skilled does exist; yet there is in fact limited collaboration between institutions. Various examples were given, however collaborations between the London Economic Development Corporation, Western University and Fanshawe College in a trifecta were virtually non-existent. Further, the informants noted that there were barriers preventing further collaboration such as finding a mutual benefit in collaboration, differences in leadership and differing institutional processing timelines. The barriers stated by the informants generally support the findings of Liebovitz (2003) who posited that a relative lack of trust, mutual suspicion between the public and private sectors and differing perceptions of community and economic governance work as barriers to collaboration. The most striking of the barriers mentioned was leadership. Inherently, one would think that the London Economic Development Corporation would take the leadership role in these types of economic endeavors. However the key informant from Western University stated that the university had attempted to bring the directors and presidents of all the economic development organizations together to discuss one system for funding and one organizational model, which had failed due to various reasons. This informant noted however that progress was made as all institutions except the London Economic Development Corporation is based at Western University. Further, Liebovitz (2003) provided evidence that for a meaningful and sustainable collaboration to exist, support, resources and commitment are fundamental for a long-term partnership. However, this study provides empirical evidence that not only is there limited institutional collaboration amongst all three

institutions, but there is no systematic collaboration or resourcing to attract and retain the highly skilled in the city-region of London.

Further, Bramwell and Wolfe (2008) provide evidence of the University of Waterloo's ability to contribute to the local and regional economy through the universities world-renowned co-op and internship programs. There was consensus from the key informants that internship and co-op opportunities were a significant medium of exposing students to the local economy. However, there was variation in opinion as to whether co-op or internship opportunities would actually attract students to stay in the city-region post graduation. One informant from Western University felt that it was a way to attract students to the local community, while one informant from the London Economic Development Corporation did not feel that co-op or internship opportunities would likely entice a student to remain in the city-region. Through discussion with the key informants, it is clear that experiential learning is a significant aspect of the curriculum at Fanshawe College, and is growing at Western University. While internships and co-op opportunities may not solely attract students to reside in the city-region of London post-graduation, it is agreed by the key informants that experiential learning is growing in demand. As one key informant from Western University stated, many of the opportunities for co-op and internship are outside of the city-region, thus a coordinated effort to place students in the city-region of London would be advantageous for the student, the institution and the city-region.

Despite the lack of collaboration that currently exists between the London Economic Development Corporation, Western University and Fanshawe, informants from the London Economic Development Corporation and Fanshawe College stated their

institution had a role in the attraction and retention of the highly skilled to the city-region of London. One of the informants from Western University stated that the university does have a role, but predominantly referred to the attraction and retention of talent on campus, which is consistent with the findings in the policy document analysis of the seven medium-city regions. Further, the other key informant from Western University stated that theoretically and technically, Western University does not have a role, but aptly noted that it would make sense for Western University to be engaged in such an activity. The findings suggest that while limited relations or systematic efforts exist pertaining to the institutions attracting and retaining the highly skilled to the city-region of London, all institutions feel that their institution does have a role. Furthermore, the informants from the London Economic Development Corporation, Western University and Fanshawe College all agreed and felt strongly that the only way to attract and retain the highly skilled to the city-region was through institutional collaboration involving academia, industry and government. However, the main issue that arose from the informants was how this would actually be done and who would lead such an initiative? This reinforces the importance of one systematic strategy to attract and retain the highly skilled to the city-region and the resourcing of such an activity. These findings contribute towards the understanding of the potential role of post-secondary education institutions, specifically in the largely neglected medium-sized city-regions in Ontario regarding the attraction and retention of the highly skilled. While much of the literature regarding the economic impact of post-secondary education institutions relies heavily on spin-off companies and the commercialization of research and technology transfer, it is evident that the institutions are not as proactive regarding attracting the highly skilled and the

local economic development of the communities in which they reside despite their strategic objective of promoting community relations. As Florida (1999) suggests, the new view of the university is powering the economy predominately through the creation of the highly skilled. This research sheds a new light in marrying the institutional literature with the human capital economic development literature providing empirical evidence that there is potential for drastic policy improvements.

Moreover, the findings highlight a potentially underutilized resource in medium-sized city-regions in Ontario who host post-secondary education institutions that are struggling to adapt and restructure their local economies to the knowledge economy. As theorized by Florida (2002a) the concentration of the highly skilled may be correlated with diversity and tolerance, however not all medium-sized city-regions are in position to receive a large proportion of Canada's annual immigration intake. Further, as Glaeser et al. (2001) theorizes city-regions hosting post-secondary education institutions develop a reinforcing advantage in human capital. The findings in this study indicate that such an advantage may not be realizable unless initiatives are in place involving the relevant local institutions. Furthermore, these findings do not refute the findings of Glaeser, 1998; Glaeser et al., 2001; Clark, 2003; Shapiro, 2006 that amenities play a role in attracting and retaining the highly skilled, but given the limited resources available for medium-sized city-regions, utilizing current knowledge resources available within the city-region may be advantageous as opposed to solely funding urban beautification and amenity initiatives.

### **6.3 Geographical Implications**

The findings in this study provide some important geographical implications for the geography of talent and uneven development. It is evident that there is a definite concern pertaining to human capital accumulation, which not only poses demographic and economic concerns for a large portion of the city-regions within Ontario, but also throughout Canada. The findings in this study demonstrate that limited work in this area is being done. If everything were to remain the same, it is likely that the earnings inequality and demographic distribution of the highly skilled will continue to favor the province's largest city-regions, due to the continuous flow of the highly skilled. This creates a cyclical effect resulting in the majority of city-regions in the province striving to produce more economic activity with arguably limited resources. The flow of talent and uneven development are intrinsically related in the knowledge economy- wherever the highly skilled are located, producing new knowledge, creating new products and innovating is where the development will occur. As the literature aptly suggests, the highly skilled seek other highly skilled and innovative regions. Thus, the flow of the highly skilled in the context of Ontario has already taken form and it clearly disadvantages smaller city-regions. The results of this study indicate that limited efforts are being made to address this issue in medium-sized city-regions in Ontario, particularly in the light of hosting a significant competitive advantage in the knowledge economy, through post-secondary education institutions.

#### **6.4 Substantive and Theoretical Contributions, Limitations and Future Directions**

The first contribution of this study is research within the field of Geography. Many geographers have long studied the impact of place and economic development. Location has been a central component to the study of economic activity and has explained uneven patterns in development. This study contributes to the rich literature within the sub-field of human geography focusing on human capital and economic development by attempting to understand how post-secondary education institutions within a city-region have been leveraged to attract and retain the highly skilled. Previous studies have primarily focused on correlations between variables and the concentration of the highly skilled (e.g., Berry and Glaeser, (2005), Florida, (2002 a), (2002 b), (2010), and Hansen and Niedomysl, (2009)) and the local economic impacts of post-secondary education institutions (e.g., Goldstein and Drucker (2006), (2007), Lendel, (2010) Warren et al. (2008)). This research therefore introduces a new way of thinking about how to utilize post-secondary education institutions in the knowledge economy to promote economic development. Previous research has not provided empirical evidence of the role of post-secondary education institutions in the attraction and retention of the highly skilled, nor has it merged the institutionalist literature with the human capital literature to provide empirical evidence pertaining to city-regions institutional governance. The current literature poses limitations in that scholars have argued that post-secondary education institutions provide a competitive advantage in the knowledge economy, particularly in the attraction of the highly skilled to their host communities. However, no empirical work or discourse assessing the institutions' role in such matters is available. Further, this study contributes to an under explored aspect of the literature in that this

study focuses on the medium-sized city-regions, which as Backstead et al., (2008) documented are experiencing challenges regarding human capital migration. Scholars have recently observed the lack of attention that the smaller city-regions have received particularly in light of the creative class thesis (e.g., Lewis and Donald, (2010) and Sands and Reese, (2008)), which is addressed in this study. In addition, this study contributes to local and provincial public policy in terms of identifying an underutilized role of post-secondary education institutions to promote economic development, in an attempt to close the gap between marginalized city-regions in the era of knowledge-based development.

This study however has some critical limitations. It is important to note that the policy document analysis consisted of policy documents that were not uniformly published at the same time. Consequently, documents were analyzed simultaneously from different publishing dates. Furthermore, adjustments may be currently underway to the documentation relevant in this study. Additionally, for the critical case study of London, Ontario only five key informants could be interviewed due to time constraints, who however provided a detailed yet snap shot view of the issue at hand.

There are several recommendations that emerge from the findings and limitations of the study. Given the discrepancy amongst key informants and institutions in the city-region of London, a detailed study tracking the flow of graduates would be advantageous. Further, understanding the perception and plans of students entering both Western University and Fanshawe College regarding their expected employment destinations and the role of amenities in their location decisions would explain the migration patterns. Secondly, a more in-depth study needs to be conducted of other medium-sized city-



regions, including potential key informant interviews to further understand how and to what extent institutional relations are leveraging the presence of post-secondary education institutions to attract and retain the highly skilled in their host city-regions. This could also include inputs from the private sector, or the city-region's chamber of commerce to produce a more comprehensive and dynamic understanding of the issue. Further, research pertaining to a place based approach to the attraction and retention of the highly skilled in medium-sized city-regions would be useful to evaluate where students could be placed post graduation in medium-sized city-regions. Finally, a larger study evaluating how and to what extent institutional relations are leveraging the presence of post-secondary education institutions to attract and retain the highly skilled should be undertaken, which should involve a larger sample of key informants from the local and provincial level, local economic development institutions, universities and colleges, but also the private sector, chamber of commerce, Mayors office and the provinces regional economic development branch and the ministry of universities colleges and training.

### **6.5 Policy Recommendations**

Most importantly, greater cohesion amongst local post-secondary education institutions, the private sector and the local government and economic development institutions is recommended. The establishment of a joint committee representing local post-secondary education institutions, local government and the local economic development institution, with defined leadership incorporating a systematic strategy and resourcing model to address this socioeconomic issue is also advocated. Further, through

collaborative information sharing the implementation of a detailed measurement tool tracking annual flows of graduates would be beneficial to ensure strategic objectives are met and accurately evaluated. Moreover, increased coordination between the city-regions private sector and post-secondary education institutions is required in enhancing and providing placements for experiential learning opportunities within the city-region. Finally, a systematic alignment of the needs of the labour force and future projections with post-secondary education programming is required to ensure that the local city-region has the ability and placement opportunities to capture the advantages of human capital production from the local post-secondary education institutions.

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**APPENDICIES**

## **APPENDIX A: INTERVIEW GUIDE**

### **INTERVIEW GUIDE FOR DISCUSSION OF INSTITUTIONAL COLLABORATION LEVERAGING POST-SECONDARY EDUCATION TO ATTRACT AND RETAIN THE HIGHLY SKILLED**

#### **Introduction:**

First of all, thank you for taking the time and agreeing to be interviewed. As I have indicated in the letter of information to you, I am undertaking a research project entitled “Attracting and retaining highly skilled workers in medium-sized cities in Ontario: An institutionalist perspective”. The interview is composed of 14 questions and is aimed at gaining your reflections on the role of institutional collaboration for attracting and retaining highly skilled workers in London.

The purpose of this study is derived from broad themes and issues currently in Ontario.

- Specifically, there has been a significant migration of highly skilled individuals from medium-sized city-regions to the largest urban centres in the province over the years.
- Many medium-sized city-regions in Ontario host post-secondary education institutions which inherently attract and produce highly skilled workers.
- For the purpose of this study, highly skilled individuals are those who have obtained a certificate or degree from a post-secondary education institution, such as a university or community college or those who have obtained a skill set through extensive work experience.
- This study defines medium-sized city-regions in Ontario as those of 150,000 – 500,000 in population and consists of a spatially independent labour market.
- I have conducted a policy analysis of 6 second-tier city-regions in Ontario, and am taking a more in-depth look at London, Ontario specifically.

I will begin with some general questions to get our conversation going, and then we can go more in-depth on specific themes as you wish.

Our interview is being recorded, and as mentioned earlier complete anonymity and confidentiality are provided in any and all work (e.g. publications and presentations) growing out of this research.

#### **Interview Questions:**

1. *Please tell me about your current position as \_\_\_\_\_*

a. Role/Responsibilities

b. Tenure

2. *In your view, to what extent does the concentration of highly educated/skilled individuals in a particular city-region contribute to economic development?*

3. *Could you share with me your thoughts and views on the role and importance of institutional collaboration between post-secondary education institutions, government and the private sector to achieve goals in London?*

4. *Could you discuss your experiences collaborating with other institutions (such as, LEDC, post-secondary education institutions, the private sector and government) in London?*

a. For what purpose?

b. How long did it last for?

c. What prompted the collaboration to be initiated?

d. If none – skip to Question 7

5. *When collaborating with institutions in London were there any notable barriers in meeting a common objective or goal?*

a. Lack of trust

b. Differing agendas

6. *Can you recall or expand on any positive collaboration between your institution and other local institutions?*

a. Notable factors for successful collaboration

b. Complementary agenda priorities

c. Other

7. *Can you discuss how you feel London is performing in terms of attracting and retaining highly skilled individuals?*

a. From local PSE

b. From outside of London city-region

8. *If question 7 is...*

**Good:** why do you feel London is performing well?

- a. Strong labour market
- b. Amenities and Culture in London
- c. Other

**Bad:** why do you think London is performing poorly?

- a. The right jobs aren't available
- b. Amenities and culture in London
- c. Other

9. *To your knowledge has either of the post-secondary education institutions or city institutions ever made attempts to collaborate with one another to address the flight of graduates out of London?*

- a. Timeline (when)
- b. Which institution initiated collaboration?
- c. How did it work?

10. *Do you think your institution has any role in attracting and retaining graduates or highly skilled individuals in London?*

- a. If **yes**, what is the role?
- b. If **no**, why not?
- c. What institutions do you feel have a role if any?

11. *Has your institution developed any policies or programs with the aim to attract and retain graduates or the highly skilled in London? If so, could you provide examples?*

- a. Presence of collaboration
- b. Notable barriers
- c. Effectiveness of collaboration
- d. Factors for success

12. *It's been said that The University of Waterloo has the world's largest internship and co-op program, what is your opinion on internship and co-op opportunities as a medium to expose students to the local economy?*

- a. Method for attraction and retention
- b. Success of Waterloo in comparison to London

13. *Going forward, do you feel that collaboration between academia, industry and government is an appropriate option to attract and retain graduates or highly skilled individuals in London?*

- a. Practical
- b. Other options

14. *Do you have any final or last comments you would like to make regarding this matter?*



## APPENDIX B: DISTRIBUTION OF HUMAN CAPITAL GROWTH BY URBAN-RURAL CLASS AND AGE GROUP

### Components of human capital growth, numbers and percent, by urban-rural class and age group, 1996 to 2001

Class and age group	Change from 1996 to 2001		Components					
			Net migration		Net immigration		<i>In situ</i>	
Degree holders (percent share of age group totals)								
Large urban								
20 to 24	133,305	(100)	14,899	(11)	6,779	(5)	111,626	(84)
25 to 29	203,122	(100)	26,048	(13)	32,526	(16)	144,549	(71)
30 to 34	69,761	(100)	5,053	(7)	54,733	(78)	9,975	(14)
35 to 39	50,285	(100)	50	(0)	48,510	(96)	1,725	(3)
40 to 44	34,252	(100)	325	(1)	30,382	(89)	3,545	(10)
45 to 49	21,583	(100)	-75	(0)	19,646	(91)	2,011	(9)
50 to 54	7,328	(100)	-871	(-12)	7,538	(103)	661	(9)
55 to 59	-2,084	(100)	-2,651	(127)	2,628	(-126)	-2,061	(99)
60 to 64	-1,163	(100)	-2,408	(207)	2,648	(-228)	-1,403	(121)
65+	-18,614	(100)	-2,146	(12)	3,768	(-20)	-20,236	(109)
Total	497,776	(100)	38,224	(8)	209,159	(42)	250,392	(50)
Medium urban								
20 to 24	31,681	(100)	32	(0)	415	(1)	31,234	(99)
25 to 29	28,924	(100)	-17,995	(-62)	1,876	(6)	45,043	(156)
30 to 34	3,200	(100)	-4,713	(-147)	3,555	(11)	4,359	(136)
35 to 39	4,928	(100)	-1,135	(-23)	3,110	(63)	2,953	(60)
40 to 44	2,584	(100)	-226	(-9)	2,101	(81)	709	(27)
45 to 49	1,923	(100)	-95	(-5)	1,169	(61)	850	(44)
50 to 54	358	(100)	-150	(-42)	266	(74)	242	(68)
55 to 59	331	(100)	-119	(-36)	57	(17)	394	(119)
60 to 64	-445	(100)	-142	(32)	119	(-27)	-422	(95)
65+	-5,505	(100)	714	(-13)	133	(-2)	-6,351	(115)
Total	67,979	(100)	-23,830	(-35)	12,799	(19)	79,010	(116)
Small urban								
20 to 24	23,934	(100)	-6,117	(-26)	112	(0)	29,939	(125)
25 to 29	20,292	(100)	-7,054	(-35)	610	(3)	26,737	(132)
30 to 34	3,075	(100)	-1,576	(-51)	1,149	(37)	3,501	(114)
35 to 39	3,865	(100)	-23	(-1)	1,177	(30)	2,711	(70)
40 to 44	2,950	(100)	146	(5)	847	(29)	1,957	(66)
45 to 49	2,531	(100)	121	(5)	332	(13)	2,078	(82)
50 to 54	717	(100)	-115	(-16)	126	(18)	706	(99)
55 to 59	660	(100)	326	(49)	97	(15)	236	(36)
60 to 64	1,069	(100)	599	(56)	62	(6)	409	(38)
65+	-3,312	(100)	1,148	(-35)	144	(-4)	-4,604	(139)
Total	55,781	(100)	-12,545	(-22)	4,656	(8)	63,670	(114)
Rural								
20 to 24	17,876	(100)	-8,815	(-49)	22	(0)	26,668	(149)
25 to 29	14,854	(100)	-999	(-7)	153	(1)	15,699	(106)
30 to 34	3,303	(100)	1,237	(37)	418	(13)	1,649	(50)
35 to 39	4,550	(100)	1,108	(24)	496	(11)	2,947	(65)
40 to 44	1,532	(100)	-244	(-16)	255	(17)	1,521	(99)
45 to 49	2,802	(100)	49	(2)	212	(8)	2,541	(91)
50 to 54	1,569	(100)	1,136	(72)	162	(10)	271	(17)
55 to 59	3,600	(100)	2,444	(68)	58	(2)	1,099	(31)
60 to 64	2,236	(100)	1,951	(87)	37	(2)	248	(11)
65+	-4,629	(100)	284	(-6)	61	(-1)	-4,974	(107)
Total	47,694	(100)	-1,849	(-4)	1,875	(4)	47,669	(100)

Source: Statistics Canada, Census of Population, 1996 and 2001.

*(Backstead et al., 2008)*

**APPENDIX C: POPULATION GROWTH RATE BY AGE IN ONTARIO 1993-2003**

	Toronto	Hamilton	St. Catharines/ Niagara	London	Windsor	Kitchener
15 yrs and over	25.00%	13.84%	8.06%	10.42%	19.94%	21.49%
15-24 yrs	20.93%	-1.16%	-0.94%	-4.88%	8.74%	9.29%
25-44 yrs	19.73%	6.30%	-5.45%	-7.36%	22.46%	3.11%
25-54 yrs	26.80%	11.32%	4.01%	5.51%	26.84%	11.17%
45-54 yrs	47.77%	25.30%	27.31%	50.59%	37.76%	35.91%
55-64 yrs	26.98%	28.49%	24.87%	41.73%	14.68%	63.90%
65 yrs and over	20.83%	34.78%	17.42%	35.07%	12.75%	63.92%

*(London Economic Development Corporation, 2007, p. 29)*

## APPENDIX D: RURAL ECONOMIC DEVELOPMENT INTELLIGENCE REPORTS

### Definitions

**NAICS Classification** - NAICS stands for the North American Industry Classification System. It is a hierarchical classification system, with a number assigned to each sector and sub-sector. The major sectors have fewer digits in their number (typically 2 digits), while sub-sectors have increasing numbers of digits as the degree of specificity increases.

**Provincial Sector Employment Growth** - is the percentage change provincially in the sector between the two time periods.

**#jobs2001** - Number of local jobs in this sector in the year 2001.

**#jobs2006** - Number of local jobs in this sector in the year 2006.

**Local Sector Employment Growth** - is the percentage change locally in these sectors between the two time periods.

**Location Quotient (LQ)** - is a measure of employment specialization or strength, based on the concentration of employment as compared to the provincial norm. The LQ calculation is: % of local employment in the sector, divided by % of provincial employment in the sector. LQs are described as: Very High if over 5.0, High if between 1.25 and 5.0, Average if 0.75 to 1.25 and Low if less than 0.75.

**Provincial Sector Relative Growth (PSRG)** - this value indicates whether the sector's growth at the provincial level was higher or lower than the overall provincial growth rate. A (+) sign beside the descriptor indicates that the sector grew in employment, while a (-) sign indicates that the sector declined in employment and (0) indicates that employment stayed constant during the period of the analysis.

**Local Sector Relative Growth (LSRG)** - this value indicates whether the local sector's growth was higher or lower than the sector's growth at the provincial level. A (+) sign beside the descriptor indicates that the sector grew in employment, while a (-) sign indicates that the sector declined in employment and (0) indicates that employment stayed constant during the period of the analysis.

**Carvalho Classification** - this classification system is based on a combination of Location Quotient, PSRG and LSRG. There are 12 descriptive categories which may indicate the sectors that require attention or further investigation.

Year From: 2001  
 Year To: 2006  
 Creation Date: June 20, 2012 10:58:02 EDT AM  
 Report Region: London

**Industry (NAICS): 51 - Information and cultural industries**

Region	Prov. Sector % Growth	#jobs2001	#jobs2006	Local % Growth	LQ 2006	Prov. SRG	Local SRG	Carvalho
Sudbury, Unorganized, North Part	-43	0	0	NA	0.0 (low)	Lagging(-)	NA(NA)	NA
Niagara Falls	-43	520	455	-12.5	0.43 (low)	Lagging(-)	Lagging(-)	Marginal
Waterloo	-43	1,200	1,500	25	0.93 (medium)	Lagging(-)	Leading(+)	Transitiona l
Kingston	-43	1,505	1,130	-24.92	0.62 (low)	Lagging(-)	Lagging(-)	Marginal
St. Catharines	-43	1,220	1,215	-41	0.75 (medium)	Lagging(-)	Leading(-)	Transitiona l
Kitchener	-43	2,375	2,805	18.11	1.17 (medium)	Lagging(-)	Leading(+)	Transitiona l
Windsor	-43	1,360	1,580	16.18	0.54 (low)	Lagging(-)	Leading(+)	Moderate
<b>London</b>	-43	4,355	3,975	-8.73	0.82 (medium)	Lagging(-)	Lagging(-)	Vulnerable
Hamilton C	-43	3,970	3,445	-13.22	0.64 (low)	Lagging(-)	Lagging(-)	Marginal
Ottawa	-43	18,455	16,195	-12.25	1.26 (high)	Lagging(-)	Lagging(-)	Challengin g
Toronto	-43	73,195	70,560	-3.6	1.92 (high)	Lagging(-)	Lagging(-)	Challengin g

Source: Statistics Canada, Census of the Population

Year From: 2001  
 Year To: 2006  
 Creation Date: June 20, 2012 10:59:03 EDT AM  
 Report Region: London

**Industry (NAICS): 31-33 - Manufacturing**

Region	Prov. Sector % Growth	#jobs2001	#jobs2006	Local % Growth	LQ 2006	Prov. SRG	Local SRG	Carvalho
Sudbury, Unorganized, North Part	-9.15	120	100	-16.67	0.66 (low)	Lagging(-)	Lagging(-)	Marginal
Niagara Falls	-9.15	2,955	2,555	-13.54	0.44 (low)	Lagging(-)	Lagging(-)	Marginal
Waterloo	-9.15	10,240	10,225	-.15	1.17 (medium)	Lagging(-)	Leading(+)	Transitiona l
Kingston	-9.15	4,755	3,775	-20.61	0.38 (low)	Lagging(-)	Lagging(-)	Marginal
St. Catharines	-9.15	11,230	9,110	-18.88	1.03 (medium)	Lagging(-)	Lagging(-)	Vulnerable
Kitchener	-9.15	19,005	17,195	-9.52	1.32 (high)	Lagging(-)	Lagging(-)	Challengin g
Windsor	-9.15	34,110	25,425	-25.46	1.59 (high)	Lagging(-)	Lagging(-)	Challengin g
<b>London</b>	-9.15	22,560	21,880	-3.01	0.83 (medium)	Lagging(-)	Leading(-)	Transitiona l
Hamilton C	-9.15	38,140	32,900	-13.74	1.13 (medium)	Lagging(-)	Lagging(-)	Vulnerable
Ottawa	-9.15	37,895	23,485	-38.03	0.34 (low)	Lagging(-)	Lagging(-)	Marginal
Toronto	-9.15	173,305	142,035	-18.04	0.71 (low)	Lagging(-)	Lagging(-)	Marginal

Source: Statistics Canada, Census of the Population

Year From: 2001  
 Year To: 2006  
 Creation Date: June 20, 2012 10:59:40 EDT AM  
 Report Region: London

Industry (NAICS): 54 - Professional, scientific and technical services								
Region	Prov. Sector % Growth	#jobs2001	#jobs2006	Local % Growth	LQ 2006	Prov. SRG	Local SRG	Carvalho
Sudbury, Unorganized, North Part	8.97	0	10	NA	0.13 (low)	Leading(+)	NA(NA)	NA
Niagara Falls	8.97	1,105	1,140	3.17	0.39 (low)	Leading(+)	Lagging(+)	Modest
Waterloo	8.97	4,950	6,845	38.28	1.55 (high)	Leading(+)	Leading(+)	Driving
Kingston	8.97	2,820	2,800	-7.1	0.56 (low)	Leading(+)	Lagging(-)	Modest
St. Catharines	8.97	2,570	2,860	11.28	0.64 (low)	Leading(+)	Leading(+)	Rising
Kitchener	8.97	4,620	5,180	12.12	0.79 (medium)	Leading(+)	Leading(+)	Accelerating
Windsor	8.97	4,045	4,675	15.57	0.58 (low)	Leading(+)	Leading(+)	Rising
<b>London</b>	8.97	9,245	11,420	23.53	0.86 (medium)	Leading(+)	Leading(+)	Accelerating
Hamilton C	8.97	7,725	8,975	16.18	0.61 (low)	Leading(+)	Leading(+)	Rising
Ottawa	8.97	52,420	49,670	-5.25	1.42 (high)	Leading(+)	Lagging(-)	Promising
Toronto	8.97	148,995	149,475	.32	1.49 (high)	Leading(+)	Lagging(+)	Promising

Source: Statistics Canada, Census of the Population

Year From: 2001  
 Year To: 2006  
 Creation Date: June 20, 2012 11:00:54 EDT AM  
 Report Region: London

Industry (NAICS): 61 - Educational services								
Region	Prov. Sector % Growth	#jobs2001	#jobs2006	Local % Growth	LQ 2006	Prov. SRG	Local SRG	Carvalho
Sudbury, Unorganized, North Part	13.95	65	110	69.23	1.55 (high)	Leading(+)	Leading(+)	Driving
Niagara Falls	13.95	1,695	1,565	-7.67	0.58 (low)	Leading(+)	Lagging(-)	Modest
Waterloo	13.95	7,835	9,065	15.7	2.2 (high)	Leading(+)	Leading(+)	Driving
Kingston	13.95	7,870	9,205	16.96	1.97 (high)	Leading(+)	Leading(+)	Driving
St. Catharines	13.95	4,385	4,730	7.87	1.14 (medium)	Leading(+)	Lagging(+)	Yielding
Kitchener	13.95	4,685	6,555	39.91	1.07 (medium)	Leading(+)	Leading(+)	Accelerating
Windsor	13.95	6,495	7,960	22.56	1.06 (medium)	Leading(+)	Leading(+)	Accelerating
<b>London</b>	13.95	14,070	15,850	12.65	1.28 (high)	Leading(+)	Lagging(+)	Promising
Hamilton C	13.95	15,355	18,895	23.05	1.38 (high)	Leading(+)	Leading(+)	Driving
Ottawa	13.95	28,920	31,580	9.2	0.97 (medium)	Leading(+)	Lagging(+)	Yielding
Toronto	13.95	83,235	93,010	11.74	0.99 (medium)	Leading(+)	Lagging(+)	Yielding

Source: Statistics Canada, Census of the Population

## APPENDIX E: POLICY DOCUMENT ANALYSIS

Policy Document Analysis	Attracting Highly Skilled to City - Region	Retaining Highly Skilled in City - Region	Commonly-PSSE Relations	Attracting Highly Skilled to PSSE	Describe Role of Talent																		
Institutions	Strategic Priority	Incentives Available	Program(s)	Institutional Collaboration	Strategic Priority	Incentives Available	Program(s)	Institutional Collaboration	Strategic Priority	Incentives Available	Program(s)	Institutional Collaboration	Strategic Priority	Attract Students	Retain Students	Attract Faculty	Retain Faculty	Youth (18-34)	PSSE Graduates	Mid-Career Professionals	Skilled Trades	PSSE Faculty	
<b>City - Region: Hamilton</b>																							
Hamilton Economic Development	1*	3	1	1	1*	3	3	3	3	1	1	1	1	1*	1*	3	3	1*	1*	3	3	3	3
Macmaster University	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1*	1#	3	2*	1*	3	3	1#	3
Mohawk College	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	2*	2*	3	3	3	3	3	2*
<b>City - Region: Kingston</b>																							
Kingston Economic Development	1*	3	3	3	1#	3	3	3	3	1	3	3	3	3	3	3	3	2#	1#	1#	3	3	3
Queen's University	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	3	1#	1#	3	2*	3	3	3	1#
St. Lawrence College	3	3	3	3	3	3	3	3	3	1	3	3	3	3	1*	3	3	2*	3	3	3	3	3
<b>City-Region: Kitchener/Waterloo</b>																							
Kitchener Economic Development	1*	3	3	1	1#	3	3	3	3	1	3	3	3	3	3	3	3	1*	1#	2*	3	3	3
Waterloo Economic Development	1*	3	3	1	1#	3	3	3	3	1	3	3	3	3	3	3	3	2*	1#	2*	3	3	3
University of Waterloo	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1	1#	1#	3	2*	3	3	3	1#
Wilfrid Laurier University	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	3	3	3	2*	2*	3	3	3	3
Conservatory College	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1*	1#	2#	2*	3	3	3	3	1#
<b>City-Region: London</b>																							
London Economic Development	1*	3	1*	3	1*	3	3	3	3	1	3	3	3	3	3	3	3	2*	2*	3	3	3	3
The University of Western Ontario	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1	1#	1#	2*	1*	3	3	3	1#
Fanshawe College	2	3	3	3	2	3	3	3	3	1	1	1	1	1	1	3	3	2*	3	3	3	3	3
<b>City-Region: St. Catharines/Niagara</b>																							
St. Catharines Economic Development	1*	3	3	1	1*	3	3	3	3	1	3	3	3	3	3	3	3	3	1*	1*	3	3	3
Niagara Economic Development	1*	3	3	3	1#	3	3	3	3	1	3	3	3	3	3	3	3	2*	1*	3	3	3	1*
Brook University	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	3	1*	1*	3	1*	3	3	3	3
Niagara College	1*	3	3	1	1*	3	3	3	3	1	3	3	3	3	1	1#	1#	1*	3	3	3	3	2#
<b>City-Region: Windsor</b>																							
Windsor Economic Development	1*	3	3	3	1*	3	3	3	3	1	3	3	3	3	3	3	3	2*	3	3	3	3	3
University of Windsor	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1*	1#	1#	2*	1	3	3	3	1#
St. Clair College	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1*	3	3	2*	3	3	3	3	3
<b>City-Region: Sudbury</b>																							
Sudbury Economic Development	1#	3	1*	3	1#	3	3	3	3	1	3	3	3	2#	2#	3	3	1#	3	3	3	3	3
Ganarban College	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	1	3	3	3	3	3	3
American University	3	3	3	3	3	3	3	3	3	1	1	1	1	1*	1*	1#	1#	2*	3	3	3	3	1#

**LEGEND**  
 1 = Stated (Yes)  
 2 = Implied  
 3 = Unstated (No)  
 \*...Please refer and correspond with description of talent  
 #...Please refer and correspond with description of talent

## APPENDIX F: ETHICS APPROVAL NOTICE



### Use of Human Participants - Ethics Approval Notice

**Principal Investigator:** Dr. Michael Buzzelli  
**Review Number:** 18241S  
**Review Level:** Full Board  
**Approved Local Adult Participants:** 8  
**Approved Local Minor Participants:** 0  
**Protocol Title:** Attracting and retaining highly skilled workers in second-tier cities in Ontario: A institutionalist perspective  
**Department & Institution:** Geography, University of Western Ontario  
**Sponsor:**  
**Ethics Approval Date:** August 19, 2011 **Expiry Date:** December 31, 2011

**Documents Reviewed & Approved & Documents Received for Information:**

Document Name	Comments	Version Date
UWO Protocol		
Letter of Information & Consent		
Other	Email	
Other	Telephone Script	

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

**CURRICULUM VITAE**

**Name:** Kyle Clemens

**Post-Secondary Education and Degrees :** Western University  
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2010-2012

Intern: Economic Development & Employment Unit  
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